

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1424.—VOL. XXXII.

London, Saturday, December 6, 1862.

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[Nov. 23, 1862]

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50 Wheal Damsel, £12; 50 Wheal Lode, 20s.; 50 Wheal Tregenna, 20s.

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Original Correspondence.

EXPLORATORY BORING OPERATIONS.

SIR.—Being desirous to undertake deep trial borings on an extensive mineral property in this country, I should wish to learn, through the medium of your valuable Journal, whether there is any person in England who conducts boring under the system introduced by Mr. Kind, and successfully practised by him in the Bois de Bologne, near Paris? It would also be desirable to ascertain whether there are any new systems of boring practised in England preferable to that of Kind, having regard to speedy, efficient, and economic operations; and what, under such several systems, ought to be the lowest scale of expense per fathom in boring ordinary ground for the ascertainment of strata? As the subject is one of public interest, probably some of your numerous correspondents in the several mining districts will be able to afford full information in answer to these enquiries.—London, Dec. 3.

INQUIRER.

IMPROVEMENTS IN TREATING GOLD AND SILVER ORES.

SIR.—Last week's Journal contains a statement of an "invention" patented by Messrs. Cobley and Wright, for improvements in the treatment of gold and silver ores. Perhaps some of your chemical readers can define the reputed "invention," or your legal ones report if patents are granted for what has been known for ages. I am much interested in the treatment and profits of gold ores, and, exclusive of well-earned tribute to genius, should hail with delight improvements in the methods of treating any of "the various classes of gold ores," which must be treated in bulk according to their respective chemical combinations, to local circumstances regulating their supply, and to the commercial value of their products.

Dec. 3.

AURIFER.

ORE-DRESSING MACHINERY.

SIR.—In last week's Journal a letter appears, signed "One Present at the Experiments," in reference to my machine for dressing ore. The writer has my best thanks for his remarks and suggestions, but I think it will not be necessary to try the experiment he mentions, inasmuch as every man who understands anything of ore dressing will be able to judge for himself, from the remarks I am about to make, as to the effect of a downward course of water in a jiggling-machine. There seems to be an impression (I do not mean to include the writer of the above letter as participating in the belief in the slightest degree) "that the backward rush of the water assists the descent of the heavier particles as much as the upward current assists the rise of the lighter." I refrain from remarks which I should be justified in making, but I will observe if any of the Jurors were actuated with this impression in giving their opinion relative to the merits of jiggling-machines, so as to be regretted. Let us presume we have a rather poor class lead ore to treat—say, containing from 5 to 10 per cent. of ore. With my machine I should place a layer of clean ore on the sieve or perforated plate, about 1 inch in depth; this ore should be large enough not to pass through the sieve (the size of the holes must be made according to the size of the stuff to be treated). The orey stuff is then put on about 2*½* inches thick; this must be regulated according to its richness. The richer the stuff the less the quantity. If the orey stuff contains 5 per cent. of ore and upwards, we can in one operation bring it up to about 60 per cent. The effect produced by the machine may be thus explained. The coarse ore resting on the holes in the perforated plate may, in some measure, be compared to the action of the valves; at every stroke of the water they should be lifted sufficiently to allow the finer ore to descend; and as the water is almost constantly going upwards the refuse cannot but in a very slight degree descend with the ore. I am now speaking of a machine worked by feeding it with a shovel, and scraping off the waste in the usual way. The inconvenience in this instance, by allowing the water to rush back through the ore, would be the carrying down the fine refuse with the ore; and instead of having hutchwork (as it is termed), producing 60 per cent. of lead, it would be, perhaps, under 40 per cent.; but if the machine were worked by allowing it to feed itself, and discharge the waste by the action of the water only, this could not be effectually done by allowing the water to return to the hutch; moreover, the action, which may be said to be double, the light rising before the heavy, and the heavy falling before the light, after each stroke, would be considerably interfered with. I am totally at a loss to know how any German process can be considered similar to mine in effect if the water rushes up and down. With a common jiggling-sieve anyone can satisfy himself as to the effect of a downward rush of water. If the impression is that the ore does not go through without it, let them introduce a sieve of work in a hutch, and instead of moving it up and down as usual, let the sieve descend 1 inch or so at a time, by sudden jerks, as far as they can reach, and it will be found that the ore will pass through, and much less waste than if moved up and down. I do not mean that this can be practised beyond an experiment with a hand sieve. In concluding my remarks, I will observe if there is any machine in existence (not copied from mine) that will work 30 tons of ore per day, and leave the waste as clean (worked with power equal to that of an ordinary boy of 15 years of age), I must be content, and thank the Jurors for awarding my machine an Honourable Mention only.

JOHN HUNT.

Porthleven, Dec. 3.

THE NEW LIGHT—ATMOSPHERIC GAS.

SIR.—My attention has been directed to an article in the Journal of Nov. 22, headed "A New Light—Atmospheric Gas," and as anything in this line alleged to be new is generally investigated by me, I venture to give you my opinion on this "Atmospheric Gas," and on the article by which the process is explained.

First, as to the light itself: there is nothing whatever new in carbureting ordinary air—all it means is this, that instead of using a wick to convey the liquid by capillary attraction to the point at which it may be burnt, air is made to pass through a highly volatile hydrocarbon, which, taking up the vapour, is propelled through pipes to the burner, *where the vapour of the hydrocarbon alone is burnt*. The air itself is simply a carrier of that which gives the light, and has nothing to do with it in any way whatever, excepting as a supporter of combustion, and in this mixed state forms a dangerously explosive compound, which is not so with coal gas, as it is incombustible in the gas-holder and pipes until it is mixed in certain proportions with air. Mansfield was the first to carburet air, and about fifteen years ago the process made some little noise; more recently an American apparatus was introduced, by which the necessity of an air-holder was superseded—a fan being actuated by clock-work forced air through benzine or some such liquid, and the speed of the fan gave the quantity which could be delivered per hour for the supply of a given number of burners. Even within the last twelve months something of the same kind of apparatus has been in action in Moscow, but it has not made any progress. The fact is, it means simply a consumption of so much of the liquid, which will not differ very materially in quantity from the ordinary way of burning; and as your article is silent on this head, the inference is that there is little or no difference between burning it in the way described or by an ordinary Holliday naphtha-lamp, the former requiring a liquid of double the cost of the latter, and liable to condense in the tubes. All these processes are, however, retrogressive in a country where gas from coal or petroleum can be had.

Now, as to the article on the subject: the writer begins by saying that "innumerable endeavours have been made by inventors to construct a simple and compact apparatus, by which the manufacture of gas might become as ordinary a domestic duty as baking or brewing; but ingenuities as have been the arrangements, and successful as they have been in the hands of servants of ordinary intelligence, the carelessness in some cases, and, perhaps, more frequently the generally repulsive idea of having a gas-work on one's premises, has prevented gas lighting becoming anything like universal." True, private gas making has not become universal, for the simple reason that it does not answer the purpose of any person to make his own gas, when he can be supplied at a moderate price from public gas-works, and, if it did, there is the difficulty of making him think so, and of inducing him to go to the expense of a private gas-work, coupled, perhaps, with the difficulty of finding a place in which to put the apparatus.

I claim, however, for myself the credit of being in a position to supply a gas-apparatus which shall supply ten lights for five hours per night, each being equal to six candles, at a total cost of 1s. for the night, and to a consumption of 50 or 60 candles. The apparatus has only three portions, each being perfectly portable and complete in itself, requiring no brick-work whatever, and occupying not more than 8 feet square if all placed together, although the gas-holder, which occupies the greater portion, may be placed in any corner and at any distance away from the rest of the apparatus; and two hours after delivery at the residence of any purchaser, it will be ready for making gas. Any person, the merest boy or the most

stupid servant, can manage it, and the whole price is but 25*l*. Now, if this is not removing the difficulty of which you complain, I do not know what is. For ten years I have been labouring in this direction, and I invite you or any person to call and see the apparatus at my depot in Great Portland-street, in the beginning of December.

I may venture, with a pardonable egotism, to state that, being myself the manufacturer of all the gas-works, small and large, which I erect, I have during the past ten years made hundreds of experiments both in the apparatus for and in various modes of gas making, and my opinion is most decidedly in favour of coal or cannel in this country, where economy is the chief consideration: indeed, in almost every locality it is the cheapest material. The tunnel now being formed under the Alps is lighted with gas made from coal in the works which I have erected, as well as a great number of others in various parts of Italy, for both municipalities and the Italian Government, where the cost of the coal is very high. I am now preparing works for lighting the palace of His Highness the Viceroy of Egypt with 3000 lights, and coal will be the material used. In Spain, too, where in the interior the cost of coal is enormous, it is found to be the best and cheapest material.

Gas can be made from anything that will burn with a flame in open air. Wood and peat in some parts of Europe are used, but the difficulty of removing the carbonic acid gas is so great that, no doubt, coal will eventually supersede them. How far the natural oils of America and Canada will be made available remains to be seen. The Fitzmaurice Gas-works are making gas from petroleum very successfully in some parts of this country, and the process will be shown in operation early in December at my depot. Where purity of light and rapidity of production are considered of the first importance, leaving out of consideration the cost of the gas, then, probably, this gas, which requires no purification, will come into extended use as soon as the supply becomes regular. This natural oil is, no doubt, produced from bituminous matter, and the probability is that the heat generated for the distillation of the bitumen is owing to the decomposition of pyrites, and has only been sufficient to throw off vapour, and not a permanent gas, which having condensed into a liquid has permeated through various strata until it has finally settled in an impermeable basin, and thus the deposit has been stored from age to age until its recent discovery. What has become of the bitumen from the anthracite of this country? Was the heat so great as to generate gas, or is there a deposit of oil still to be discovered. One hypothesis is as likely as the other. Certain it is that the only difference between making gas from coal or cannel and from petroleum is that in the one case you act directly on the coal, and at such heat as that you get impurities along with the gas, to be removed by materials which have an affinity for them, while in the other, by making gas from oil, you treat a secondary product of coal, incapable of forming impurities when converted into gas, but with the disadvantage, in the point of economy, that there is no coke left to reduce the cost of the gas.—*St. Neots, Hunts.*

GEORGE BOWER.

COLLIERY EXPLOSIONS.

SIR.—From last week's Journal I learn that the verdict of the inquest connected with the recent explosion at the Walker Colliery, near Newcastle-on-Tyne, is "explosion purely accidental." I have carefully studied the report of this inquest, and am puzzled to understand how such a definite verdict should have been recorded. Experienced men, it is stated, "very evidently" examined the workings after the disaster, and were not able to discover either where or how the explosion originated. The ventilation was declared to be ample. Nevertheless, it is certain that fire-damp had accumulated in one part of the pit in sufficient volume to produce an explosive mixture, whether by slow leakage from the coal or, as sometimes happens, by sudden eruption. It is also clear that in this case there must have been a naked light of some kind with which the gas came in contact. One viewer expresses his opinion that ignition may have been due to a defective or injured safety-lamp. I need hardly observe that the gas called fire-damp, or marsh gas, is not spontaneously inflammable, as a chemist asserted a short time ago in a letter on the Will-o'-the-Wisp; for, if it were, safety-lamps would be useless. It was given in evidence that from the appearances in the locality where the men had been blasting the explosion did not occur there; and in support of this conclusion was adduced "the fact of the lamps of the deputies who were working there having been found with their tops on and all secure." Now, where blasting is carried on there must be fuses, and these fuses might be lighted; but it is to be presumed that safety-lamps are not allowed to be opened for this purpose. The lucifer-match is a very convenient and obvious source of light in such cases, and, unless it could be shown that there were no matches underground, the evidence of the satisfactory condition of the safety-lamps found near the site of the blasting operations affords no indication whatever that the explosion did not take place in that part of the pit. The inquest has not thrown any light on the cause of the accident, and a more reasonable verdict would have been "death by explosion, of which the cause is unknown." The verdict, as it stands, exonerates all persons from blame, dead or alive. But a naked light there must have been in this pit, in which the safety-lamp was considered essential to the protection of life. What was that light? A defective safety-lamp would imply culpable negligence, and so would the use of lucifer matches in a pit where naked lights were strictly forbidden. The explosion may have been purely accidental, but, assuredly, no evidence was advanced at the inquest to prove that it was. Y.

THE WALKER EXPLOSION—DANGER INDICATORS.

SIR.—The proceedings before the coroner relative to the Walker explosion were scarcely satisfactory. The calamity is allowed to pass as a mere accident, and that probably, in pure hopelessness of arriving at the real cause, which to every practical man must appear sheer neglect. Neglect of supervision, neglect of ventilation, neglect of lamps, neglect of rules as to smoking, matches, blasting, or otherwise; for no one who has the least knowledge of such matters will ever believe that the fire-damp exploded spontaneously. There is also this feeling in the mining districts, that however usually careful men may be, yet from time to time they will presume too far, and leave the requisite examination aside, just at the moment it is most indispensable. Instruments will also get out of order; but those I have contrived for indicating danger are so simple that this probability is reduced to a mere possibility. With your permission, I shall describe some of the forms embraced in my patent, and suitable for those occasions. To explain the principle of these apparatus, I shall premise that they act by the relative specific gravity of air, compared with that of the dangerous gases and water which collect in mines, as the most frequent source of accident. Imagine a common ball-valve in a water-butt: it rises and falls with the level of the water, because the specific gravity of the volume it displaces is less than that of the water. So, for water or choke-damp which is also heavier than a perfect or partial vacuum, or a hollow float filled with air, the specific gravity of such a float would cause it to rise where choke-damp or water is accumulating. In experiment, I discovered a drawback in the weight of the copper of my float, and, naturally, I turned to aluminium; but here, again, there was a difficulty as to the joint, which I have vanquished. This same principle reversed gives the indication of fire-damp, which is of less specific gravity than air. The ball will descend when surrounded by a medium of hydrogen or any of its compounds, including fire-damp. This is easily understood by anyone possessing even rudimental knowledge of natural philosophy.

The indicator for fire-damp is thus constructed:—In a box the float is suspended to a balance at one end, and which at the fulcrum is connected with a magneto-electric or galvano-electric conductor; while the other arm of the balance, by the depression of the float under the action of the gas, will rise and come into contact with a metallic arm in connection with the opposite pole of the conductor. When the gas enters the box or casing (which is merely a protection to the internal mechanism) the ball sinks, and completes the circuit, which acts on any of the usual forms of alarm and signals which may be made to indicate the locality of the danger. Another form, for the same purpose, is contrived on the principle of the Davy lamp. Two electrodes, within a galvanic circuit, are placed in a cylinder of wire-gauze, with closed ends; above this is suspended a flap, movable disc, or piston, which in rising is caught by a spring arm, pawl, or ratchet—the former connected with the positive electrode, and the latter with the negative pole of a conductor, of which the circuit passes through the alarm and signal instrument above ground, or elsewhere. The electro-galvanic current is passed periodically or intermittently (which may be effected by an automatic arrangement), and if there be any fire-damp where the indicator is placed, the spark or incandescence at the electrodes will cause an expansion of the gas—like what occurs in the gas-engine. This dilatation acts on the flap, disc, or piston, which is thrown into contact with the spring arm, pawl, or ratchet, and so brings into action the alarm and corresponding signals.

The instruments for choke-damp and that for water are of the nature

of the first of the foregoing, with this difference, that the ball rises in the gas or water, and depresses instead of tilting up the opposite arm of the balance, to complete the electro-magnetic or electro-galvanic current, which gives the alarm and other signals how and where required.

There are other modes of effecting the same purpose specified under my patent, but in these I have most confidence. Proper contrivances applicable to steam and other dangerous vapours are provided, as also some available for any objects where the specific gravity of the atmosphere is capable of being made the standard of comparison. There is what has been long required in steamers, and establishments where boilers are used—the means of conveying to a distance a repetition of the action of steam and water indicators of boilers, so as to simplify control. By this means a captain, or the head of a factory with steam-power, can tell at any moment whether there is neglect in the stoke-holes.

All this is quite simple, you will say; why has it not been thought and adopted before? Because there is gross neglect or culpability on the part of our legislators and mine owners, some of the latter having lost the best reputation in regard to accounting for the patent rights the use underground. Simple as it appears, I think it affords the means of prevention under circumstances similar to the awful carnage (I can call nothing else) which has been just whitewashed over by the inquest, without a word of comment; thus showing the jury's sad conviction of the immeasurable nature of the evil, so far as their appreciation was concerned. Trust I shall be enabled to show that my plans furnish the desired remedy, and I shall rely on the discriminating support of your valuable Journal to urge its adoption; for I am satisfied that if the same resolution were applied to this subject as there has been to the smoke nuisance, hundreds of valuable lives would have been saved.

R. MOORE.

Paris, Dec. 1.

"LONG WALL" v. "PILLAR AND STALL."

SIR.—It is not astonishing that Mr. Naysmith should consider the long wall system a very unscientific method of getting coal, providing that the long wall system which he has described as such. I should like to know whether it is from Mr. Naysmith's own experience of long wall working that he is enabled to speak of the danger attending the system and whether the great waste of timber that is spoken of occurred under his own management. An opinion in these matters mean nothing—either Mr. Naysmith knows from his own personal observation that the long wall system has proved a failure when skilfully and fairly tested, or otherwise. If so, Mr. Naysmith is justified in speaking of the long wall system as failure, but upon no other grounds. Perhaps he will have the kindness to say if he has tried the system, and under what circumstances, stating the angle of inclination of the mine, nature of the floor upon which the mine reposes, also the nature of the roof or strata overlying the coal, thickness of the seam, and depth from the surface, and I will do my best to assist him in arriving at a conclusion why he should have failed in introducing the long wall system into South Wales. I am not certain that I quite understand the diagrams of Mr. Naysmith in last week's Journal, but if I do my surprise is lessened that Mr. Shepherd should have taken up the subject in the manner he did, providing he claims no greater interest in it than in that of being a public benefactor. I am speaking from my own knowledge, and mature consideration, when I say that I have never yet seen a mine that I could recommend to be worked according to Mr. Naysmith's diagrams; perhaps the mines of South Wales differ much from those that have been accustomed to. Mr. Naysmith's diagrams would have been made clearer to have been understood providing he had given us a scale and plan of the pits on, and supplied us with the information requisite to judge whether any great difference exists between the mines of this coal field and that of many others.

Jos. GOODWIN.

Hyde and Haughton Collieries, Dec. 2.

OUR COAL FIELDS.

THE "LONG WALL" v. "THE STALL AND PILLAR" SYSTEMS OF WORKING A COLLIERY.

SIR.—Did you ever reside in Germany, and have the honour of the acquaintance of a German professor (of no matter what)? If so, you invariably find these gentlemen are what is termed "book learned." They would not go two yards out of their way to get a little practical experience, but adhere tenaciously to their books, and their own crude theories, amount of argument, or fact, will shake their preconceived notions. I thought Germany alone produced this class of the *genus humani*, but reading two papers in last week's Journal on the working of our coal fields I find that England likewise abounds with them also; on turning to map of England, it certainly is marked with numerous lines described railways, which hurl some of us restless mortals over their iron nerves at a rate of 40 or 50 miles per hour, while the centre of the map is marked with the names of Shropshire, Staffordshire, and Warwickshire, all county containing extensive coal fields, with other minerals, all worked by the long wall system. The roofs over these minerals are as variable as any that can be found in any other coal field in England; the system has been in operation for ages, and thousands of tons of coal and iron are raised daily, and the long wall would be changed for any other system of working a coal seam more economical, but until this can be shown the system will still be continued. Now, with this rapid system of travelling, we would naturally suppose that colliery owners and colliery engineers would avail themselves of this agency to see what is going on elsewhere, and alone trust to their own opinions and prejudices on things they do not understand, or confine their observations to the columns of the Journal. In my own part, I do not regret the discussion my late paper on this subject have called forth, and I do trust this discussion will lead to a better system of working our valuable coal fields. Mr. Goodwin states, in this connection, that from this, our coal fields will be practically exhausted, so far as the present seams are concerned, but he thinks discoveries will come to light in the future, making up for the loss of our coal. Be it so, but we must leave to the future, we have nothing to do with that at present. The question has been raised is, "Are we working our collieries at present with due care and economy?" I have shown we are not, and I still maintain that collieries worked on the stall and pillar system is an outrage on the laws of economy.

Your last week's Journal contains two papers on colliery operations, the first of these papers the author gives us some elaborate sketches of coal wasting, coal cutting, coal dirty-faced monster. On one side of the sketch is the seam of coal in its virgin state, on the other side the workings. Now, from these sketches inexperienced persons would imagine that every atom of the seam is worked out, so clean and beautiful does it appear on paper. But why this reserve; why not show the black mass where the coal is left behind and lost for ever? All this is admitted, even by the author himself in his letter in the Journal of Sept. 6. He says his own words—"The 50 per cent. of coal Mr. Shepherd supposes to be entirely lost is, I must inform him, taken away, but there are some collieries where you are obliged to leave these pillars to support the roof." Again, in addition to the loss by the pillars, he details a further loss in the cutting the coal—namely "To secure the roof," he states, "the iron, brass and other rubbish found in the coal is built up in the form of a wall by the side of the tramroad, and all the small, coal dust, &c., that seem important to indicate the quality of the coal, are left behind it." The percentage is not given. On referring back to the Journal, in reference to the heaps of coal dust on the surface, the author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pillars, which is a most inconvenient waste of coal." The author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pillars, which is a most inconvenient waste of coal." The author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pillars, which is a most inconvenient waste of coal." The author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pillars, which is a most inconvenient waste of coal." The author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pillars, which is a most inconvenient waste of coal." The author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pillars, which is a most inconvenient waste of coal." The author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pillars, which is a most inconvenient waste of coal." The author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pillars, which is a most inconvenient waste of coal." The author of the paper, in his letter in the Journal of Oct. 18, states—"It is known that

appears to me as bad as the former, and equally extravagant, in the expense of such a system of gate-roading must be something to contemplate. As to the statement that the 4-feet and 6-feet seam of coal do not yield sufficient brash and other rubbish to build up the gob from which the coal has been extracted, and the supposed deficiency of timber he speaks of in a properly-conducted long wall colliery, I am absurd to require a moment's notice. On the other hand, on the long wall system, seams of coal from 2 to 6 feet in thickness make the work imaginable; the loss of timber is as a shadow compared with the timber broken and destroyed, as shown in the sketches referred to.

In the long wall system of ventilation, brattices, brattice-cloths, and like monstrosities, are unknown, and every man works in a fine, dry current of ever-changing fresh air; and as to the dangers referred to in the long wall work, they only exist in an imaginative mind. This is confirmed by the annual reports published by the Government Inspectors: these supposed dangers are mere idle supposition, I will pass over such things non-existent.

In the second paper, the author's mind seems to vibrate between the systems; he admires the value of the long wall system, but clings tenaciously to the stall and pillar system. He gives us an instance of one I presume, difficulties of working one of the seams in his own locality, as follows:—"The Peacock Mine seam is about 2 ft. 6 in. in thickness, and is one of the most fiery seams in the South Lancashire coal field. The mine is known in the neighbourhood near Oldham as the Bent Mine; it lies upon a floor composed of alternate layers of shale and thin seams of coal. The roof is composed of a tender shale for about 18 in. in thickness, above which a strong dark-coloured metal is found;" or, in other words, above this 18 in. of tender shale, I apprehend, a good roof is found. I imagine the smile which will extend over the face of some old long wall collier while reading this. If I went down a shaft with a Shropshire master, I should simply say, "Well, how do you propose to get this?" The reply would be—"I shall hole in the top in the shale, Sir, and burst up the coal after it is holed." If Mr. Goodwin would do this, he would find his supposed difficulty to vanish into thin air; this would give a wall 4 feet high, and pretty work. I may say I never saw a seam which could not be worked on the long wall system with the commercial economy I have pointed out in my previous papers. The supposed difficulties of maintaining the gate-roads, either from the falling of the roof or the swelling up of the floor, are all that is mythical, as the latter may be avoided by raising the rails about a foot above the natural floor, and thus excluding the action of the air upon it; this effectually prevents the danger referred to. Again, as to the order of the faults in the above cases being different from that of other coal fields, this is erroneous; some of the seams are very faulty indeed. But when faults occur in the working, the long wall men do not fly from their system for that of the stall and pillar, but make their arrangements according to contingencies.

If a long wall collier finds he has a soft tender shale of 18 in. in thickness, the coal he holes in it, and builds it upon the gob; on the other hand, if he has a soft fire-clay, or other substance, 18 in. below the coal, he holes in the softest part of it, and builds it up behind him also; in such a case no harm from hoing in the coal is experienced; in fact, this is one of the first engines in a new long wall colliery, which is the softest part to hole in, whether on the top or bottom of the seam. With reference to the small nodules of ironstone which lie between the coal and the floor, to the best of my recollection I never saw a seam without these nodules, and the holer usually keeps a blunt pick by him to strip down the earth containing these hard substances; even these supposed difficulties scarcely merit this observation. Again, in a properly worked long wall seam, after the coal has been worked, on making a road or driftway through the gob road is found intact, and presents the same even surface as it did before the coal was extracted, excepting just those parts where the wastes were formed, while if these sketches are to be relied on the roof in a stall and pillar seam is broken, and falls in in a most disordered manner. As the gob in the long wall work containing inflammable gas, on driving through it the gob is found only to contain a large quantity of carbonic acid gas; this I attribute to the process of fermentation, if I may so term it, which is produced by the changes in the strata. So much, then, for the danger of inflammable gas oozing out into the gate-roads.

A few weeks ago your correspondent, "V.", gave us a ludicrously lucid description of his long wall experiments with 60 yards of face. He tried the way and it failed; he then tried it in another direction with the same success. He had no dirt to build up his gob with, although the roof was about his ears, and he gave it up. The author of the first paper referred to tells us the same dismal story. These gentlemen strongly remind me of the story of the celebrated experiments of that great philosopher Leibnitz, who, on hearing the earth was round like a ball, anxious to satisfy his own mind on that point, went 50 miles to the east, and then 50 miles to the west, and, finding no symptoms of globosity, pronounced the earth flat, which all the faithful of his creed now rigidly believe to be the case. The one experiment is as absurd as the other.

I cannot trespass further on your space this week, but as these gentlemen have given us their views I will prepare another paper, and give a detailed sketch of a real long wall colliery, with all its details and costs of every operation. We have now heard all that can be said for the stall and pillar system, and nothing yet has been adduced in favour of the coal mining monster. If all our coal fields are to be exhausted in two centuries, I feel thankful I live in A.D. 1862. G. SHEPHERD, C. & M.E., Throgmorton-street, Dec. 3.

FALSE TRADE MARKS.

SIR.—It appears to me that it is not well known as it ought to be by an Act of Parliament, passed last session, under the title of the Trade Marks Act, 1862, 25 and 26 Vict., cap. 88, it is provided that, in addition to the many prohibitions of false trade marks, denoting false weights, measures, or quantities, that any person putting on, any article, or thing uttered, sold, or exposed for sale, "any word, figure, signature, or mark, for the purpose of falsely indicating such article or article, or the mode of manufacturing or producing the same, or the ornamentation, shape, or configuration thereof, to be the subject of any existing patent, privilege, or copyright, shall for every such offence pay to Her Majesty sum of money equal to the value of the article or article so sold, or uttered, or exposed for sale, and a further sum exceeding 5l. and not less than 10s." This enactment will, it is presumed, put an end to the improper practice hitherto pursued by many persons of making articles as patent for which no patent exists. And it will seem important to inventors and manufacturers to learn that this now the law, hence I have sought to thus occupy your valuable space, London, Dec. 1. F. W. CAMPIN.

CONDENSED PEAT AS FUEL.

SIR.—The announcement, in last week's Journal, of the formation of a company for the purpose of manufacturing condensed peat for use as fuel, otherwise, naturally induces me to examine the prospects of the proposed company. The statements which I find in that prospectus appear to indicate that the projectors of this undertaking are labouring under a most remarkable delusion. The statement that peat can, by any conceivable mode of treatment, be so prepared as to have more than twice the value of coal as fuel, or do more than twice the duty of coal, is so utterly inconsistent with what is well known as to the fuel value of peat, that absurdity must be obvious to anyone. It is, in this respect, on a par with the statement that lead can be converted into gold.

Of the experiments quoted in support of this statement, some are so evidently destitute of value or meaning that it would be waste of time to criticise them. Others can only be regarded as illustrative of the extraordinary errors into which men, who ought to know better, may fall by improper modes of experimenting.

As regards the quality of the condensed peat, I do not at all doubt that it is capable of being used for smelting iron, for making gas, or for generating steam; but what I do doubt is, that this condensed peat can be manufactured at a cost that would admit of its being used for these purposes, as a substitute for coal. Everything that is known as to peat supports such a doubt, and nothing has been brought forward to remove or lessen such a doubt; and it appears to me a very remarkable fact that the prospectus of the Condensed Peat Company nothing at all is said of the way in which the prepared peat is to be dried, of the time the drying is to be completed, or the cost of that drying. However ingenious and effective Mr. Buckland's method of preparing peat may be, as regards the ultimate effect produced on the quality of the peat, it must not be forgotten that his mode of preparation does not so far as regards the drying of the peat. This, which is the signal difficulty to be overcome in utilising peat, remains to be done after the preparation of the peat by his method, just as it has to be done in any other

case; and, much as I should wish to see peat rendered available for the many useful purposes it is applicable to, I cannot but regard as a grave defect of this proposed undertaking the entire absence of any reference to this very important circumstance.

In the paper which I read on this subject last week, at the Society of Arts, this and other details of the subject are fully treated of; but as that paper was published at length in the Society's Journal, I need not here do more than refer to it.—Dec. 3. B. H. PAUL.

SUBSTITUTE FOR TIN AND TERNE-PLATES.

SIR.—You will, perhaps, allow me space in your next issue to reply to a communication "from a Correspondent," published in last week's Journal, and headed "Dangerous Substitute for Tin and Terne-plates," and concluding—"This injurious metal may be so applied as to endanger human life." Your "Correspondent" would have done well to have given the subject little consideration before making so strong an assertion, and heedlessly condemning a "material" likely to become of important and extensive use. Is your "Correspondent" ignorant of the fact, and must he be told, that the metals he thus hastily condemns enter largely into the composition of many articles and utensils of daily domestic use, such as Prince's metal, Queen's metal, Britannia metal, pewter, &c. The metal most largely used in the manufacture of tea and coffee-pots is composed of 44 lbs. tin, 4 lb. bismuth, 1 lb. antimony, and 1 lb. lead. Did anyone, even your "Correspondent," discover the dangerous effects of the use of those utensils, or that the use of them endangered life?

I strongly suspect that a more sinister motive than care for the public health has prompted your "Correspondent" to condemn what he evidently knows little about. To allay his fears, however, I may add that there is not much probability of these patented plates being used for other purposes than as a substitute for terne-plates, for which use the firm of W. Hallam and Co., of Swansea (with whom I have been for many years connected) the sole manufacturers, have extensive orders. HENRY J. MADGE.

Upper Forest Tin Works, near Swansea, Dec. 4.

RELATIVE VALUE OF DIVIDEND-PAYING MINES.

SIR.—For the information of your readers, the following is a table of the relative value and number of years' purchase of all the copper mines in Cornwall or Devon that are paying dividends. The calculation is, of course, based on the last dividend paid and the last price per share in the market, in the Journal of Nov. 29. I see none selling so low as five years' purchase, although most of them have been working and paying dividends upwards of 21 years:

CALCULATOR.

| Name of Mine. | Market value. | Yearly div. | Years' purchase. |
|---------------------|---------------|-------------|------------------|
| Devon Consols | £500,000 | £60,144 | 8 |
| East Caradon | 215,040 | 24,476 | 8½ |
| South Caradon | 204,800 | 15,360 | 14 |
| West Caradon | 33,814 | 3,072 | 11 |
| Marke Valley | 90,000 | 10,800 | 8½ |
| West Seton | 116,000 | 12,000 | 9½ |
| Seton | 67,132 | 4,752 | 12 |
| Bedford United | 16,000 | 2,400 | 7 |
| North Trebberky | 23,744 | 2,670 | 9 |
| South Wheal Frances | 47,120 | 5,952 | 8 |
| Wheat Basset | 46,180 | 6,144 | 7½ |
| East Bassett | 27,136 | 3,072 | 9 |
| Wheat Clifford | 66,700 | 8,700 | 7½ |
| East Pool | 51,940 | 1,920 | 24 |

THE MARKET AND REAL VALUE OF MINING PROPERTY.

NEW SETON V. WHEAL SETON.

SIR.—I may, perhaps, not be considered intrusive if I solicit space for a few remarks on the comparative merits of New Seton Mine and Wheal Seton, especially as there just now seems a desire for enquiry into the real state of mines, as regards their present productiveness and probabilities of a continued yield. This enquiry most assuredly should be made by persons who have money to invest, and would feel willing to embark in mining if reliance could be placed upon statements which are put forward, instead of our having those which lead to wild fluctuations in the Mining Share Market, and present false inducements to confounding capitalists, regulated regardless of improvements or falling off in mineral returns, or the conditions upon which returns may be expected from new undertakings. When we take, for example, the high price asked for the shares in New Seton (145% per share), and bear in mind that this mine is making regular bi-monthly calls of about 30s. per share, and view it in comparison with Wheal Seton, selling at 160% per share, the division being the same, paying regular dividends of 21 per share, with every prospect of an increase, surely we may look on this as one of the enigmas in mining valuation of which the mysteries of share-jobbing can only give a solution. I would ask fairly and openly what are the prospects shareholders in New Seton have of its ever becoming a paying property? Can they put forward anything more encouraging than that their workings are on one of West Wheal Seton lodes? It is well known that the ore in Wheal Seton and West Seton makes in what they term an ironstone (more correctly greenstone), and wherever the lode leaves this rock it immediately becomes poor. Now, this greenstone does not go near the lode in New Seton, and, indeed, the lode is embedded in such a stratified rock that I have never yet known to produce copper ore in any quantity. Where, also, in this mine can they point out any signs of the great guide which in all new mines is the desideratum—the gossan? I may as well be told that an apple tree can produce fruit without the beautiful indications of its blossom, as any person to say that a course of copper ore is to be met with unless in connection with gossan, its sure precursor. Many persons have remarked that West Seton never made a gossan back, but to this I reply that the great outcrop in connection with West Seton (if I may so term it) is at Wheal Seton, where there is as fine a gossan as any miner would ever wish to sink under. Appeal to the judgment of any experienced mine agent who understands thoroughly the mines I mention—such an intelligent man as Capt. J. Vivian, of North Roscar, for instance, who has studied not only practical mining, but the scientific associations and geological phenomena—whether, supposing West Seton was never in existence, if this piece of stratified crystalline ground, having no great mineral hot beds (gossans) were shown to him, he would jeopardise his reputation by recommending its outlay upon its development?

Experience emboldens me to assert that there is not one-half the mystery connected with mining as would appear to deter private capitalists from its study. It is astonishing how little this matter is studied: "bulls" and "bears" raise or depress mining property with impunity, and young men, quite youths, impertinently quote day by day what they consider the value of shares, such quotations, of course, being looked on by the uninitiated as a guide for purchase or disposal. Let us have a trace to such an unkindly war upon the confidence and capital of the public, for whose wealth there is an inexhaustible field of operations in our own home dominions; and to those of my own county, upon whose responsibility rests the selection of the fields of mineral labour, I would counsel that honesty of purpose which will save much money from being squandered in ill-directed channels, loss of character to themselves, disaster to the willing adventurer, and poverty-clouded home for his family: and, beyond this, a dispute which will throw out of employment thousands of our hard-working miners.

CHARLES BADEN.

EAST KONGSBERG NATIVE SILVER MINING COMPANY.

SIR.—Several of the shareholders of this company have asked me for my opinion on the report of the general meeting in your valuable Journal of Nov. 29. I find it is there stated that Mr. Bigg, a director and shareholder, in remarking on his late visit to the mines of the company in August last, said he did not believe in the statement as published in the pamphlet given to the shareholders on the commencement of the company, that 44,200, had been the average annual profit from the King's Mines, in Norway, for 25 years previous to that date. He put forward a paragraph in Mr. Murray's "Hand-Book of Travels in Denmark, Norway, and Sweden," page 149, to show that only £50,000, or 11,041. 13s. 4d., had been the profit from the mines between the years 1857 and 1860. "Revenue Account of Norway." I beg to state, in the interest of fair dealing, that Mr. Bigg referred to the report of the Government mining director's report on the King's Silver Mines for the years 1856, 57, and 58, page 89, he would have found the following statements of profits of those mines, and the distribution of the same:

Total profits. Delivered to State cashier. Added to mine fund.

1856 £213,587.82 £100,000.00 £113,587.82

1857 143,301.36 75,000.00 68,301.36

1858 289,909.110½ 50,000.00 239,909.110½

Total £64,798.108½ £225,000.00 £421,798.108½

Three years average 215,599.76 75,000.00 140,599.76

English money £47,811 11s. 8½d. £16,562 10s. £31,049 1s. 8½d.

The average annual net profit stated in the pamphlet was 44,200, consequently it was under the mark—at any rate, during the three years here given. The £50,000, or 11,041. 13s. 4d., stated in Mr. Murray's "Hand-Book," is most likely the sum the Government took from the profits in 1858, or some part may have gone to the privy purse of the King; as these mines were formerly a royal perquisite in the time of the Danes, and the King of Norway may have still a share of the profits.

Again, I wish to state that there must be some error in Mr. Bigg's statement, that after the mine-stuff costs only 10% per cubic fathom for extraction from the mine, that an average of 35% more is to be spent to extract the silver therefrom, by levelling, carting to mill (not a mile off), and then stamping and refining of the same. Of the rough stuff extracted, 70 per cent. is thrown on the waste heap at the mine, so that there would remain only from 2 to 3 tons to be stamped, dressed, and refined, and 75 per cent. is washed away from the stamped stuff, consequently there is little left to carry to the smelting-house. At the King's mines I find, from the reports thereon, that the ore costs about 91. 12s. 6d. per cubic fathom, and has to be hauled up 260 fms. from the bottom of the mine to edit; and of three mines in that district I find the costs of stamping and dressing are 8s. per ton. The costs will stand thus:—Mining costs 10%, as per Mr. Bigg; then, 2½ tons from it, dressing and stamping, &c., will be 11%, more, making 11%. To which must be added, say, 3½ more for salaries, which would bring the costs to 14% per cubic fathom. But I am confident it can be done for much less when the mines are more opened out, and more ore is raised; to the present time much has been spent in driving two shafts and clearing out old mines.

I find from Mr. Jordam's report on these mines, given to the mining direction of Norway, that up to Dec. 1861, this company had done the following work on the mines:—

Sinking Cub. fm. 4,431 Cross-cuts Cub. fm. 10,591

Driving 25,68=30,11 Adits 22,15=32,74

The sinking and driving produced ore; the cross-cuts and adits are, in fact, making entrances into the mines to expedite and cheapen the extract of mine-stuff and water.

At the price of 14% per cubic fathom, it would require only 50 9-10ths cwt. silver as to bulk of stuff—or, say, ¾ oz. per cubic foot of stuff sent to the mill to pay costs.

At the mines of Armen and Kongens, in the King's reserved district, I find the common ore (malm) has 2½ ozs. per cubic foot as sent to the mill, but when all the native silver taken over by hand-picking and rich stuff is stamped, it contains as much as from 5 to 6 ozs. per cubic foot; and I do not understand why one should not expect that some mines within the territory of this company should not give something like those mines. The reserve fund of the King's mines is to be \$1,000,000; in 1858 it had reached to \$663,054, 31½.—Page 89 of the Government report.

Having been unavoidably absent at the beginning of the last general meeting of the company, on Nov. 26, I had not an opportunity to state these facts, and, indeed, was unaware that they would be brought forward; nor could I, as I expected Mr. Bigg had copies of the Direction of Mines' reports. In that for 1855 will be found a statement of the native silver from ten mines in the King's reserved district, as far as the documents left by the Danes admitted of solution. By sending through a friend in Christiania, I have obtained these documents.—Kensington, Dec. 4.

JOUX H. CLEMENT.

MINING IN IRELAND.

widends. Why, if this system had been adopted in Greenville it could now be paying dividends; but the agents know too well what they are about, and will not "pick out the eyes of the mine" to please anybody.

Let my readers refer to this week's report, and they will notice a great improvement in the mine since the meeting. I expect other improvements soon.

Before I conclude, allow me to say that my statement, "That the call made at the meeting of 2s. per share was amply sufficient to clear off all liabilities," is strictly correct.—*Dec. 2.*

A CAUTIOUS MAN.

GOLD MINES IN WALES, AND THEIR MANAGEMENT.

SIR.—Several gold companies have been established, and from the letter of your correspondent, of Nov. 15, signed "A Traveller," gives every prospect of their succeeding, as he observes, the management be right. There is one point, however, of which little has been said, and this is a question of great and vital importance to the success of the various companies—Does the gold permeate the whole of the lode, or does it occur at intervals, and in pipes or veins only? If only in portions of the lode, much waste or cost must arise from crushing the whole quantity, which, I am informed, is the case with two of the companies now established, who are crushing the whole of the ore raised in exploration of the mines. If, as I suppose to be the case, that 1-20th of the quartz extracted in the development of the mine will only yield gold, then labour and expense are thrown away upon 19-20ths of the quartz, which would effectively remove the chance of getting dividends, unless the quartz be very rich indeed. I am led to make these remarks from circumstances that occurred to me during my recent visit to the East Clogau Gold Mine, and subsequent thoughts relating to it. Previous to my visit, gold had been discovered in St. James's lode No. 2, and I myself broke and brought away stones of ore containing gold, one stone of which gave at the rate of 82 ozs. of gold to the ton. I observed that a total change had taken place in the character of the quartz, and, upon examination, found the men had cut through a vein or pipe of auriferous quartz of about 2 in. in thickness, of a deep yellow colour, and, having passed through it, were again working in the ordinary quartz. Visible gold has since been discovered, which, I suppose, is the result of having passed through another pipe. Since the above, I have had several long conversations with a gentleman thoroughly conversant with quartz gold mining in Australia, and from him I learn that the gold occurs in a similar way in the mines that have come under his immediate notice in that colony. This may or may not be the case in all the mines in Wales; however, I think where a portion of the lode presents indications of a like character referred to, it will be well for the managers to sink or rise, as the case may be, upon these particular spots, and thoroughly explore them, and the result will, I anticipate, be a large yield from a small amount of quartz. There are, doubtless, many parties who have seen more of gold mines in Wales than myself, and I think it will be well if they would give the public the benefit of their experience in these matters through the columns of your widely-spread publication.—*Dec. 4.*

GEORGE SEARBY.

EAST BRONFLOYD MINE.

SIR.—The reports from this mine for the last six months have invariably told the flattering tale, that in one place the lode is worth 25 cts., of lead ore per fm., and in another from 20 to 25 cts. Now, assuming that the eight men are so well employed as not to earn more than the ordinary monthly wages of the district—say, 3/- per man, and 1/- per man for materials—they must from each of their bargains have opened from 24 to 28 fms. of ground during the period referred to above; thus, from both bargains, say 45 fms. of ground: multiply this quantity of broken ground by the agent's regular and continuous estimate of its value, we should have from 45 to 55 tons of lead crees on the floors. I am glad to see that the crushing mill is to go to work in a few days, because speculation will then be beyond the mark; but, in the interim, I am open to make a challenge of 10/-, to be paid by the losing party, and dispensed by you towards the Lancashire District Fund, that 10 tons of ore in the rough or in the stone cannot be scraped together within the boundary of the mine. Further than this, if the challenge is better liked in this way, I will offer 10/- to 20/- (to go to the same fund), that the floors are not, at the present time, weighed with 5 tons of ore, nor has that quantity been broken from the mine since this company started. I have once or twice before drawn attention to the way legitimate mining in this country is frustrated by these ridiculously absurd reports, and I hope your condemnation of the system will induce you to insert this letter from me.

OLD WHEAL NEPTUNE, AND ITS MANAGEMENT.

SIR.—A "Cautious Man," having thought proper to put some important questions respecting the formation of this company, as a director I have taken it upon myself to reply, not for his satisfaction, but to show how false and hollow his inuendos are.

1. Mr. Halsey states—"It is true that a correspondent who was a large shareholder asked my opinion of the mine, but I told him I knew nothing of it, and advised him to get the mine inspected by some disinterested agent. He took my advice, had a report sent to him, and gave his broker orders to sell 100 shares." This is a tissue of untruths. Our agents can prove that the mine, from the commencement of operations to the present time, has not been inspected by any agent; that only one order has ever been applied for, and that has never been used; and if an order to sell 100 shares has ever been given, it has never been acted upon. I am happy to say that the whole of the shareholders have perfect confidence in the merits of the undertaking, and I challenge Mr. Halsey to prove the sale of a single share.

The mine was knocked on the expiration of the lease, in 1822; there being sixteen lords, a renewal could not be obtained; the old cost-books, now at the office of the company, will prove it made a profit of 960/-, the last two months it worked.

3. There are sixteen directors, gentlemen of the highest standing and character, each holding 100 shares. Without their consent I consider it would be as impudent of me to give their names and addresses as it is for a perfect stranger to ask for them.

4. For the leases and promotion 1500/- in cash and 2000 shares have been given (see the *Mining Journal* and *The Times*). The promoters having for the lease, &c., disbursed more than the 1500/-, their interest will be contingent upon the success of the mine.

5. There have been 3100 shares paid upon, and 900 remain to the credit of the company; and if the number allotted is not sufficient to bring the mine into a paying condition, one of the directors has agreed to take all the unallotted shares at par. No free shares have been issued at all.

The managing director, who has devoted nearly all his time for six months past, and his brother directors have not received any fees, neither will they until the mine is in a dividend state. The salary of the secretary, rent of the offices, and stationery are under 250/- a year. The directors are no party in bringing this mine into notoriety: it will stand or fall on its merits. They hope to have the engine at work the first day of the new year, when a short time will prove the worth of the mine.

A DIRECTOR.

THE MINING INTERESTS PROTECTION SOCIETY.

SIR.—I fully agree with your correspondent, "Argus" and with the writer of the article in the *Journal* of Nov. 1, as regards the desirability of forming a Mining Interests Protection Society. I have not the least doubt but that such an institution would be well supported by mine adventurers and shareholders in public companies generally, as it could not fail to be a great preventive of bad properties being brought into the market. Many persons are in the habit of coming down to this district, and representing themselves as men of capital, who, in connection with a "friend or two," are desirous of investing. By these representations they induce holders of mineral property to grant them an agreement for a lease, and with this they return to London. In two or three weeks the prospectus of a company appears, for double, and in many instances even more than treble, the capital required. The promoters turn out to be a man of straw, who obtains his living by getting up public companies. He will have a good round sum for his trouble, and then there are other "preliminary" expenses, which generally represent a few thousands. A property must be a very good one to bear these "preliminaries," but I think that a Protection Society would remedy this state of things to a great extent, and prevent shareholders' money from being squandered amongst promoters, and for introductions, &c.

Another mode of deception I may mention. Old properties, which have been abandoned by speculators, are resuscitated, and brought to the market again, accompanied by the usual "first-class" reports, promising enormous dividends, which, however, are never realised. Many of these properties are virtually worth nothing, and the only reason they are brought to the market is to secure a bait for the promoters. A Protection Society would be a safeguard against such schemes being carried out. I trust that a few spirited London gentlemen will take the matter up, and that we shall soon have a Mining Interests Protection Society in full operation.

106, Commercial-street, Newport, Monmouthshire.

SHAREHOLDERS' PROTECTION SOCIETY.

SIR.—In a past number of your valuable Journal a suggestion was thrown out for forming a society of this kind, and certainly it would be most useful to watch the various bubble schemes that are daily tempting the unwary to ruin, and to prosecute directors and officers of companies where frauds have been practised, either by withholding facts from the knowledge of shareholders or by false representations. I could mention one company, which required a capital of 100,000/-, and began business with about 1500/- only, having an Hon. and M.P. for chairman, and, individually speaking, highly-respectable men for directors. The greatest falsehoods were published of the prospects of this company's doings, and the few bona fide shareholders that there were kept entirely ignorant of the truth; meetings that should have been held having been postponed, with no other object than that of concealing the position of the affair. Of course, this ended in the Bankruptcy Court, and, if the shareholders have any spirit, they will make the directors pay all the debts, and repay what they have paid on their shares. Another instance is—I have written to the secretary of a company, in which I am a shareholder, in vain for a list of its shareholders, and I find, also, that no such list has been left with the Registrar of Joint-Stock Companies, as required by law, notwithstanding there is a penalty of 5/- a day for such default. Now, in the event of a break-up of this company, where is a true list of the shareholders to be found? The Registrar of Joint-Stock Companies ought, I think, to be required to prosecute every case of such default as this. The neglect of the performance of these duties by companies can only arise from sinister motives. "A Shareholders' Protection Society" would look into all such matters as these, and teach men who are fond of appearing on paper our directors that they have duties for which they will be held responsible.

SUBSCRIBER.

THE STEAM-ENGINE—COMPETENT SUPERINTENDENCE.

SIR.—I believe it has generally been acknowledged that the high state of perfection to which the Cornish steam-engine has been brought is chiefly owing to the energy and ability of her engineers, and that, although the principle was given by Watt, it is the improvements introduced by these engineers that has given it its world-wide fame, both for safety and economy. These engineers have generally been well educated, and although there have been instances of men raising themselves from obscurity by natural talent, yet we may safely attribute their success to the happy conjunction of theoretical knowledge with that of sound practice. I have been led to these remarks by the question lately raised in some of our mines in consequence of the death of Mr. James Sims, one of our most celebrated engineers, as to the practicability of allowing their valuable and important machinery to remain in the hands of undisciplined and comparatively inexperienced working engineers; and I am surprised to find this step has already been adopted by the adventurers of Wheal Bassett, who have decided on allowing their extensive machinery to be under the superintendence of one who, it is said, can neither draw or calculate, and whose experience has been confined to the erection of a few engines under the engineer before named. I understand the agents of these mines have agreed to be held responsible for the future well-being of their machinery; but, I would ask, supposing a breakage should occur in this mine from want of proper inspection of the machinery, incuring a loss of perhaps hundreds of pounds to the adventurers, will the agents really replace the loss brought on them or not? and even though this mine should go on safely for two, six, or twelve months, will the adventurers really believe they are right in allowing their machinery to continue working without the constant inspection of an efficient engineer? I hold, Sir, this principle is dangerous in the extreme, and I appeal to mining adventurers, both in and out of the county, to protest with myself against the adoption of a step which may be the means of bringing on us great losses, and which is objectionable, inasmuch as it attacks scientific attainments, and

tends to check the progress still making in perfecting that machine which has been the chief means of exploring after those riches with which our county abounds. I am informed that at Wheal Bassett comparative poverty has been assigned as a reason for this step, but I believe it is generally acknowledged that it is bad policy to lessen an agent's salary when the mine is poor, as that is the time when his energies are most required; does not this apply to the adventurers of Wheal Bassett, when their machinery has been weakened by some 15 or 20 years' working, and they can least bear the expense of breakages, we find they deprive themselves of the aid of a duly-qualified inspecting engineer? I hope to see further communications on this subject, as I believe it to be a matter of paramount importance to the interests of the mining community at large.

Redruth, Dec. 4.

A MINING ADVENTURER.

LADY BERTHA.

SIR.—In last week's *Journal* I notice some remarks as to whether the mine is carefully inspected previous to the agents signing the reports, &c. My reply is—Yes; we report twice weekly, with our names attached, which appear in your columns regularly. As to the officials selling their shares, I believe I did hear one of them say he parted with a few shares some three or four weeks since. Surely I have nothing to do with this, and I consider that every man has a right to do what he likes with his own property. The communication of "B." would appear to be written with one object—that of endeavouring to frighten holders out of their shares. I am pleased, however, to inform them that the lode in the 30 ft. east of the little cross-course is still worth 15/- per fathom, and that the ground in the cross-cut at the new shaft is favourable. There are points of no small importance, as this end (the 30 ft.) is now just under the new shaft. I challenge "B.," or his inspectors, as to the truthfulness of our reports on the workings of the mine. In confirmation of this I will point to the regular samplings which we have made during the past three years.—*Dec. 4.*

F. C. HARPER,

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

WHEAL GRYLLS is one of the richest mines that has been worked in the district for many years past; in fact, Georgia lode is at present the most valuable one that has been worked here since Great Wheal Vor was at its best, the large stones of tin, almost pure, weighing 3 or 4 cts. each, which come up daily speak for themselves. There is no wonder about South Grylls shares being fast taken up, and there is no doubt amongst the miners acquainted with it that it will prove equally as rich a mine.

NORTH TRESCREBBY.—At the meeting, on Tuesday, a dividend of £. 6d. per share was declared, and a cash balance of 350/- carried to credit of next account. The accounts were brought up to the end of October, and ores only credited that were sold in September. To put the mine in a sound financial position three months' costs were charged against two months' ore, so that at every future meeting shareholders can calculate what their following dividend will be. The lode in the 67 east has considerably improved since this end (the 30 ft.) is now just under the new shaft.

F. C. HARPER,

WHEAL ARTHUR.—It is gratifying to find the prospects at this mine are so very cheering. In resuming the sinking of the shaft a short time since, on the lode, they have broken some good stones of ore, with indications of a still further improvement. The next sampling will, it is expected, be about 40 tons of good ore.

EARL WHEAL NEPTUNE.—This mine has been in operation for some time by a highly respectable party, who have done a large amount of work—sinking shafts on the different lodes, and driving an adit about 3/4 of a mile long, and now within 50 fathoms of three well-defined lodes at 50 fms. from surface, so that the mine can be worked for years without machinery. The sett is surrounded by good mines—Wheal Grylls, Old Wheal Neptune, &c.—which have yielded immense quantities of both tin and copper. The strata are of a congenial character for mineral, and a little more outlay will bring the mine into a paying state.

AT NORTH TRESKERBY the 77 fm. level, east of sump-shaft, has come

into a fine lode, worth 15/- per fm., with a good appearance. Tressider's shaft is also improved. A dividend was declared at the meeting, on Tuesday last, and two more will be paid bi-monthly, which are already earned. Few mines can say this.

COOLARTRA AND BOND (Monaghan).—The discovery of lead ore at these mines still holds on; the water being quick, it has been decided to drive north on the lode, to test the continuation of the ore in that direction. So fine a discovery at a depth of only 36 to 40 ft. has not been made for some time in Ireland. It is intended to throw out flat-rods from the engine to this shaft, by which means two mines virtually may be wrought by the same engine. This is a good arrangement, and will enable large returns to be made. It is known there is a good lode gone down in the bottom of the 35, the greatest depth of the mine; this will have to be sunk on for 10 fms., when it may be stopped at a trifling charge. Above the 35 over 1670 tons of lead ore were raised and sold—an excellent precedent for the shallow discovery just made on the same lode. It is but fair to infer that this parcel of ore will be equally productive. At the Tassan Mine, on the same lode, the 70 fm. level is the richest part yet tested; so that if anything can be calculated on analogy or precedent the Coolartra and Bond cannot be surpassed in these important proofs. The first meeting of the company was held at the offices, 27, Hope-street, Glasgow, on Wednesday, when the officers, committee of management, &c., were appointed. A day will shortly be named to limit the applications for the remaining shares not disposed of. The men at their late treat were promised a second on the occasion of the sending off the first cargo of lead ore; they all declare it will not be long before they again meet at the festive board.

ROSEWARNE CONSOLS.—Ellen's shaft has been sunk 15 fms. through a continuous and rich course of copper ore, still holding good in the bottom of the shaft.

There is little doubt that it will continue till it meets with and in the elvan, about which much more valuable discoveries will, no doubt, be made.

WORVAS DOWNS (in Lelant) appears very likely soon to become one of the most prominent and productive tin mines in the locality. It is now fairly laid open, and in full course of working; and, judging from the reports, will, no doubt, shortly give good profits.

A great deal of work has been done with very little outlay—less than 6000/-, a smaller sum than some schemers ask as premiums for less valuable sets.

HATE VALLEY MINE, in 1000 fms., half a mile west of Callington, Cornwall, has been working on a small and efficient scale since May, 1861.

Two or three shafts have been sunk on the brow of the hill in a mass of gossan, capel, spar, &c., and levels driven therewith east, west, north, and south, short distances, without meeting with any wall. Nearly the whole of the stuff broken from this extraordinary formation must be stamped, as it all contains tin more or less.

An adit level is driven into this hill about 40 fathoms towards the above-named point, and which will be nearly 20 fathoms deep on a little further extension. A few months ago it was deemed necessary to sink an air-shaft from surface to the end of the adit level; and, to our great surprise, we came suddenly upon a fine floor of tin at 9 feet deep, which has continued to the present depth of adit, 11 fathoms, and apparently gone down even better below adit. This additional discovery, which is 10 fms. east of shaft first sunk, induced the shareholders (who have amongst them some influential gentlemen and several respectable thoroughly practised tin mine agents) to at once turn their attention to erecting stamps, &c. Within half a mile of the operations of the mine Lord Ashburton has kindly granted the Burland Bridge Valley for our stamps, and stream of water free. The sett is granted by his lordship on very favourable terms, the dues being 1-20th for 21 years. Such liberality is, of course, an inducement for parties to try their luck in this hitherto neglected district for tin. We have erected an excellent new water-wheel, to which eight heads of stamps are attached; and we are now laying down dressing-floors and building a calcining house. The stamps went to work last week, and, so far, the tinstuff is turning out equal to expectations. We have opened the ground at the mine from surface by the side of the hill, and commenced working it like a quarry. No machinery required; and as six men will be sufficient to open ground and break stuff for stamps, we shall ere long realize fair profits, after stamps, dressing-floors, &c., &c., to whom our indefatigable agent (Capt. Thomas Taylor, of Redmoor Mines) will afford every assistance.—W. WATSON : *Calstock, Cornwall, Dec. 3.*

EAST TRESKERBY.—The works here are progressing satisfactorily. Practical authorities state, without hesitation, their belief that a rich course of ore will be met with in the 55 fm. cross-cut in the course of a few weeks. The 40 end is producing some magnificent copper and silver-lead ores.

WEST BEAM AND BAGTOR MINES.—If ever a mine cut up at the nick

time to serve the purposes of itself and its competitors, it is certainly West Beam, in the 75 fm. level, where the lode was supposed to have died out.

This opinion was expressed by the manager, and it is fortunate for the present proprietors, buried, and will shortly be raised and dressed. This, assuredly, is serving the purposes of this mine—now for the serving of its competitors.

Prudently, that could by possibility be adduced against the Bagtor Mine was—"Oh! the tin mines of the Ashburton district do not hold down. Look at West Beam!" Ay, now, look at West Beam. At Bagtor they have a long way to get from the adit level to the 70, and then they need not quail or fear; the West Beam is a perfect contradiction to all such ill-grounded suppositions. The Bagtor Mine possesses lodes as good, strata as fine, and every element constituting a tin mine in a tin district. The discovery, also, is of the utmost value to the eastern part of the West Beam seat, where the Wheal Union lode is cut off by a cross-course—and such a cross-course! When I visited the mine a short time since, the old adit had not been entered before for many years, a splendid sight presented itself. The exhalations of oxides of iron had formed themselves into stalactites and stalagmites masses, pendent and incriminate in the most fantastic groups, plainly indicating the highly mineralised condition of the lode whence these beautiful creations had emanated. I have no doubt the search for the tin lode, dislocated by this cross-course, will be largely rewarded. That it may be so is the wish of G. H.

HUNTINGDON (Tin).—The share list for this mine is progressing most favorably. The mine being well known for the fine quality of its tin, renders it a favourite in the market; no doubt can be entertained but it will soon rank in the first class of Devonshire tin mines. The recent discovery at West Beam is most important, as proving the fallacy of the notion that the Devon tin mines do not hold in depth. If ever any lodes gave proof for continuing in depth, the Huntingdon does in a pre-eminent degree. All the necessary conditions are observable, they have only to be tested and followed to be proved so. The country appears to be a settled ground,

ments of practical agents, whose veracity and respectability are well known, have more influence over the public mind than the extravagant reports which are generally appealed to public prospectuses. The operations which are going on are of the most encouraging character, and fully confirm, so far as seen, the opinions of the several agents who have reported upon the mine. The nature and appearance of the lode recently opened upon east of the adit continues to maintain its size and value, the whole of the same being saving work for copper ore; and it is firmly believed that when a sufficient force is employed in developing the several productive lodes seen in the adit, which has been driven to the extent of 120 fathoms, that large quantities of copper can be recovered long before any engine will be required for pumping. JAMES LANE.

From Mr. EDWARD COOKE.—The market has been very dull throughout the week. The period of the year has arrived when a dullness is generally observed. In the absence of any buying on the part of the public, advantage has been taken by parties in the market (whose operations are almost constantly on what are termed the "heuristic" principle) to lower the prices of the various mines which they operate in. Having succeeded in their endeavours to a certain extent, it affords those who have failed to spare a good opportunity to buy into several good mines on moderate terms. Purchases made at the present time into mines judiciously selected can scarcely fail to give a large profit in the course of two months. EAST CARADON shares have sustained their price very well, owing, in a great measure, to the large oversold account. The shares are still very scarce for delivery. NORTH CROFT shares, after having been driven to 4 $\frac{1}{2}$, have improved to 4 $\frac{1}{4}$. At the Tincroft meeting, on Monday, it was resolved unanimously to alter the present constitution of the company to the Cost-book system. There cannot be two opinions about the policy of this alteration. The mines are in a prosperous condition, equal, probably, to any in Cornwall, with every prospect of dividends for many years to come; therefore, no shareholder need be under the least apprehension of any responsibility by signing the cost-book. There are many objections to unregistered scrip shares, among which is the chance of their being lost during their transit from distant shareholders to the office, for the purpose of receiving the dividends. I am aware that such is the fear on this head, that some parties have allowed the dividends to accrue for several years rather than risk sending their scrip to the office. The question of dividend being always left in the hands of the directors, nothing was said about it at the meeting on Monday last. It must be highly satisfactory, however, to the shareholders to know that there is a cash balance of about £6000, applicable for that purpose. Hitherto it has been the custom for the directors to retain the sum of about £6000, cash balance, at least £4500, could be fairly divided among the shareholders. The mines, as I stated before, are in a most prosperous condition, and gone on gradually improving for several years past, and at the present time have larger reserves of tin and copper than any other mine in the West of Cornwall, with the exception of Dolcoath. It may not be generally known that the encroachment of the adjoining company—Cook's Kitchen—on the boundary of Tincroft, has laid open a most valuable piece of ground for the latter company, while Cook's Kitchen company will probably have to refund a very large sum of money for the tin they have taken away. Tincroft, according to all present appearances, will be a profitable concern for very many years to come, and from the sterling character of its merits will always command a good price in the market; at the present time, however, it is selling for less than one-half the amount of either South or East Caradon, while it is paying better dividends; and no one at all conversant with the respective properties would, I presume, venture to say that the former possesses any advantage in the prospect of a permanency of prosperity.

ILLOAN MINES, adjoining Tincroft: A preliminary meeting of the shareholders of these mines was held at the Tincroft office, on Thursday last. If any new mining adventure ever held out good prospects, this set certainly does. As I have on a former occasion stated, it contains a portion of the celebrated Carn Brea, Tincroft, and Cook's Kitchen Mines. An engine is now being erected, and already some most promising lodes have been discovered. The shares are held by the principal shareholders in Tincroft. WHEAL GRYLLS have been in good demand, at higher prices. There is not a mine in Cornwall, raising the quantity of tin that this mine does, selling at half so little a price. The shares are really cheap at 35 $\frac{1}{2}$ to 40 $\frac{1}{2}$, and nothing but the most dire accident can prevent their ultimately going to a higher rate than either of these quotations, while the current price is less than 30 $\frac{1}{2}$. The mine is in 124 shares only. A dividend of 20s. will be declared during the current month. Very strong attempts have been made to get down the price of LUDCOTT. The public frequently sell when they ought to buy. In this instance, however, the decline has taken place principally from absence of buyers. A few bona fide orders to buy would cause an immediate reaction. The next sale of silver and lead ores will be much better than the last, which rallied about 2900 $\frac{1}{2}$. A dividend of 10s. will be declared in the early part of January, 1863. The shares should be bought largely at the present low price. NORTH MINERAS have been largely dealt in during the week, and the price has been fairly sustained. EAST CARN BREA, GREAT SOUTH TOLQUHON, WHEAL UNION, GREENVILLE, and GREAT RELLACK, have all receded, although no change has taken place in their prospects—in fact, Great South Tolquhon may be said to be improving. Intelligence has reached town to-day of the death of Mr. G. J. Tyre, one of the directors of the Tincroft Mining Company. This gentleman held about 3000 shares. In anticipation of these shares coming on the market, the price may be temporarily affected, but this can in no way affect the intrinsic value of the property. With regard to the above shares, they may not come on the market at all, and, in fact, it is more than probable they will not; but if they do, it will afford an opportunity to capitalists to invest their capital in a safe security, which will pay them a large percentage for their outlay. A dividend of 5s. has been declared to-day by the directors, leaving 4500 $\frac{1}{2}$, to be dealt with by the shareholders at the next meeting; while the mines are making good monthly profits, and likely to continue to do so for ten years to come, and probably many years beyond that.

From Mr. JAMES CROFTS.—By way of variety to that portion of the mining public who have become habituated as readers of the hebdomadal circulars issued by several firms and individuals, containing statistical information and opinions on the merits of a large number of mines, the writer has of late rather devoted his remarks to the Journal to a few concerns at a time, and as specialties for study; and is encouraged to follow up the plan in consequence of its success, adding, by way of information, that as a non-shareholder (on principle) in any mine, he considers himself free from any bias in his recommendations, or favourable opinions, on particular stocks. His brief review last week embraced OKEL TOR, GREAT WHEAL BUSY, and PROSPER UNITED. Attention is now drawn to NORTH BULLER, in 1024 shares, with nearly 24,000 $\frac{1}{2}$ expended, and has now arrived at a point of depression recommending itself as a share to be "picked up" at its present almost nominal price, with a tolerable certainty of large profits at a not, perhaps, very far distant day. It need scarcely be said that the Beller District (Bedruth) as to riches in lodes, needs no amplification; and to discover remunerative ones in North Buller, may be only a question of time. The last meeting was held on Nov. 22, when all costs up to the end of September were charged, resulting in an adverse balance of 344 $\frac{1}{2}$, and a call of 1024 $\frac{1}{2}$ was made, the costs averaging 190 $\frac{1}{2}$ per month. The report is highly encouraging, and concludes by stating that "our ends are looking more promising than ever I saw them before, and there is every reason to believe that, by carrying out our present mode of working, we shall open up a good and lasting mine."

Who has not heard of the celebrated TINCROFT MINE, established about 35 years since, in 6000 shares in scrip, and of late years permanent in dividends, the result of which has been to advance the value of the mine from 30,000 $\frac{1}{2}$, or 40,000 $\frac{1}{2}$, to 80,000 $\frac{1}{2}$. Tincroft was a staple article at Mr. Peter Stainthorpe's (an uncle of Mr. Peter Watson, of the Mining Market), of Bishopsgate-street, for upwards of 35 years, and its well-thumbed parchment strip assisted its claim to antiquity as a mine, besides creating a species of fascination in its possessors as a tangible security that "could be felt as well as seen." Any advantages possessed by this peculiar form of certificate were, however, more imaginary than real, since scripholders could not be easily traced in the event of calls, and could only be solicited by a public notice to bring the scrip to the office in case of dividends, and hence arises a query as to how many of this scrip, in the course of 35 years, has been lost, mislaid, or otherwise disposed of? Like a predetermined resolution to demolish an old building, the directors, at a meeting held on Tuesday, proposed and carried a motion to abolish this scrip, and to convert the mine into a cost-book, and thus whatever scrip may be absent will go to diminish the claims for future dividends; and upon such a contingency as the writer considers the shares should be bought. There has lately been an important addition to the set, and it is a low estimate that the mine should pay at present from 10s. to 15s., a quarter in dividends, upon a cost of 14 $\frac{1}{2}$ to 15 $\frac{1}{2}$ per share, than the average. In the same level south we have put up a rise to the height of one run of steps, which has turned out so well for ore, and have now a stoppage going southwards, from 10s. per fathom. In the 44 north; now extended 82 fms. 1 foot, we have a lode 2 $\frac{1}{2}$ feet wide, worth 4 $\frac{1}{2}$ per fathom, and it appears to be gradually improving. The stops in the back of this level are producing ore worth 4 $\frac{1}{2}$ per fathom. In the 34 north, extended 107 fms. 1 ft. 6 in., we have now 2 feet of the lode in the present end, worth 3 $\frac{1}{2}$ per fathom; the country is favourable and easy for exploring. Winze No. 4, behind this end, is worth 6 $\frac{1}{2}$ per fathom on the western part of the lode; the other part, left behind, we shall commence taking down in about a fortnight, when the winze will be taken to the 44 fms. level. At the smelting works campaign 34, for reducing September and October ore, was commenced on Monday last.

EAST KONGSBERG.—D. Macdonald, Nov. 21: North and South Sundse: These mines are always giving a little silver. The silver from the northern mine is of good quality.—Ramarud: The south vein has improved greatly this week; it is now giving good schelders.—Neues Gluck: I have no improvement to report from this mine. The shaftmen are still engaged timbering the eastern mine.—Stamping Mill: The stamps continue to go night and day. During the week 60 tonder (1 tonder=8 cubic feet) of main ore have been stamped, which have yielded 84 ozs. by vanning; 57 centners (1 centner=1 cwt.) of silver are now in stock. This from the Bamerud main is very poor, only 1 $\frac{1}{2}$ oz. per cent (1 lode=1 $\frac{1}{2}$ oz.), or $\frac{1}{2}$ oz. per cwt. We hope for better results from the Anna Sophia main, which we are now crushing. We have insured the stamping mill and the other buildings which have been built since the Ramsrud houses were insured last year.

THE NEW GRAND DUCHY OF BADEN.—Dec. 1: In the 54 north, now extended 43 fms. 1 ft. 6 in., the lode is 3 feet wide, composed of horn spar, friable quartz, fluor-spar, and some rich ore, intermixed, altogether of a fine and promising appearance. The stops in the back of this level is producing ore worth 4 $\frac{1}{2}$ per fathom on the average. In the same level south we have put up a rise to the height of one run of steps, which has turned out so well for ore, and have now a stoppage going southwards, from 10s. per fathom. In the 44 north; now extended 82 fms. 1 foot, we have a lode 2 $\frac{1}{2}$ feet wide, worth 4 $\frac{1}{2}$ per fathom, and it appears to be gradually improving. The stops in the back of this level are producing ore worth 4 $\frac{1}{2}$ per fathom. In the 34 north, extended 107 fms. 1 ft. 6 in., we have now 2 feet of the lode in the present end, worth 3 $\frac{1}{2}$ per fathom; the country is favourable and easy for exploring. Winze No. 4, behind this end, is worth 6 $\frac{1}{2}$ per fathom on the western part of the lode; the other part, left behind, we shall commence taking down in about a fortnight, when the winze will be taken to the 44 fms. level. At the smelting works campaign 34, for reducing September and October ore, was commenced on Monday last.

EXPLOSIVE COMPOUNDS.—Mr. Revy, of Vienna, has patented the manufacture of an explosive compound by treating cotton or other lignin substance, whose chemical formula is $C_{12}H_{10}O_4$, with nitric acid in a peculiar manner, whereby he obtains an explosive compound $C_{12}H_2N_2O_2$, which may also be expressed $C_{12}H_2N_2O_2 + O_2$. The cotton yarn is loosely twisted; washed in cold running water, or under a fall for 48 hours, and squeezed; dried in chambers at 120° Fahr., for 6 to 12 hours; the perfectly dried yarn is treated with monohydric nitric acid of 1 $\frac{1}{2}$ sp. grav., and monohydric sulphuric acid of 1 $\frac{1}{2}$ sp. grav. The acids are mixed and allowed to rest for 24 hours; the yarn is immersed in this mixed acid for 48 hours in pots under cover, and frequently stirred; the excess in the yarn is then thrown off by submitting the yarn to the action of a centrifugal machine; the yarn is then washed in fresh running water for 48 hours or upwards, and again dried; soaked in siccative of potash and squeezed; it is then washed for six days in running water, and dried, an excellent gun-cotton being the result. The cotton is most explosive, but entirely free from self-explosion, its explosion is not attended with smoke, its power can be regulated at pleasure; and, weight for weight, it has a force equal to six times that of the strongest gunpowder.

CONSOLIDATING CAST-STEEL.—Mr. J. M. Rowan, of Glasgow, proposes to consolidate cast-steel, or metal produced by the pneumatic process, by compressing it whilst still liquid or nearly so, whereby it is rendered much better adapted for subsequent processes.

MIXED INFLAMMABLE GAS.—Mr. S. E. Turner, of Birkenhead, has provisionally specified an invention which relates to an apparatus for burning a mixture of inflammable gas and air, in present use, wherein the inflammable gas escapes from a jet placed inside a cylinder open at the bottom, and covered at the top with a diaphragm of wire gauze, or finely perforated plate, so that atmospheric air enters the bottom of the cylinder, and mixes with the inflammable gas issuing from the jet assisting the combustion of the same, which takes place on the top of the diaphragm. To render the combustion in such an apparatus more perfect, Mr. Turner introduces one or more metal tubes into the bottom cylinder wherein the mixture of the gas and air takes place; such tubes are open at the bottom, and pass up through the gauze into the combustion chamber. By this means the atmospheric air is used in a highly heated state, and the combustion is much more nearly perfect.

RAILWAY CHAIRS.—Mr. Antonio Gabrielli, of Turin, proposes an improved wrought-iron chair for securing rails. The chair is composed of two wrought-iron plates, one overlying the other. The under plate is made rectangular, and forms the base of the chair, and the upper plate, which is smaller, lies across it diagonally, but so that its extremities extend to the ends of the base plate. These plates are connected together by a central bolt, which forms a pivot for them to turn on. The central bolt is driven into the wooden sleeper. The jaws of the chair are formed by turning up portions of the sides of the two plates. Iron clamping pieces are used between the rail and chair.

IRON RAILWAY CARRIAGES.—The Pennsylvania Railroad Company are having iron cars constructed for use on their road. It is supposed that they will be much lighter and stronger than wooden cars, last much longer, and be much more secure for the natural result of reaction.—The Metal Market continues in an inactive condition—the tendency is towards lower quotations.

In Mining Shares the chief business has been in EAST CARADON, SOUTH CARADON, MARKS VALLEY, EAST CARN BREA, UNION, NORTH CROFT, NORTH ROSKEAR, EAST

GRENVILLE, &c.—NORTH CROFT shares have been largely bought on the fall, closing first at 4 $\frac{1}{2}$, 4 $\frac{1}{4}$, with a strong upward tendency. The report from the manager, received this morning, states the 170 west is worth for copper 15 $\frac{1}{2}$ per fathom, and from 6 $\frac{1}{2}$ to 8 $\frac{1}{2}$ per fathom; the same level east is producing splendid stones of tin, and looking likely to further improve. The 150 is again improving, and producing saving work; from the look of the level above there are about 3 fms. more to drive before getting under the rich tin ground gone down from the level above. The 120, east of the slide, is worth from 12 $\frac{1}{2}$ to 15 $\frac{1}{2}$ per fathom. The winze under the 150, east of Fred's, has been completed to the 160 fms. level, and that level set to drive east, at 3 $\frac{1}{2}$ per fathoms; therefore the tin ground standing in the bottom of the 150 will soon be reached. The position of the mine has greatly improved.—NORTH ROSKEAR shares are firmly held at 36 to 37; all the loose shares have been absorbed, and a steady rise in price may be confidently looked for. The 184 fm. level has been communicated with Pearce's shaft, but there is a stop, 5 feet high, to be carried into the shaft for the length of 3 $\frac{1}{2}$ fms. in a fine course of ore, worth from 50 $\frac{1}{2}$ to 70 $\frac{1}{2}$ per fathom. As soon as this is completed, and a plot cut at the 184, which will take about five weeks, the driving of the 184, west of Pearce's shaft, will be commenced in a course of ore worth 80 $\frac{1}{2}$ per fathom, and the sinking of the shaft below the 184 will be commenced in about two months in a level also upwards of 80 $\frac{1}{2}$ per fathom.

NORTH DOLCOATH, 24s. to 26s.: the lode in the engine-shaft, now 10 fms. under the 47, has opened to 8 ft. in width, producing stones of rich yellow ore, and manifesting indications of further improvement. EAST SETON, 10s. to 11s.: the lode in the adit is 15 $\frac{1}{2}$ ft. wide, composed of spar, with occasional stones of very good ore. WHEAL UNION shares maintain the late quotation, 5 $\frac{1}{2}$ to 6; the lode in the flat-rod shaft has improved to 30 $\frac{1}{2}$ per fathom, and the indications for copper are of the most promising character. EAST CARN BREA shares have been heavily "beared," and on market operations alone to spare a good opportunity to buy into several good mines on moderate terms. Purchases made at the present time into mines judiciously selected can scarcely fail to give a large profit in the course of two months. EAST CARADON shares have sustained their price very well, owing, in a great measure, to the large oversold account. The shares are still very scarce for delivery. NORTH CROFT shares, after having been driven to 4 $\frac{1}{2}$, have improved to 4 $\frac{1}{4}$. At the Tincroft meeting, on Monday, it was resolved unanimously to alter the present constitution of the company to the Cost-book system. There cannot be two opinions about the policy of this alteration. The mines are in a prosperous condition, equal, probably, to any in Cornwall, with every prospect of dividends for many years to come; therefore, no shareholder need be under the least apprehension of any responsibility by signing the cost-book. There are many objections to unregistered scrip shares, among which is the chance of their being lost during their transit from distant shareholders to the office, for the purpose of receiving the dividends. I am aware that such is the fear on this head, that some parties have allowed the dividends to accrue for several years rather than risk sending their scrip to the office. The question of dividend being always left in the hands of the directors, nothing was said about it at the meeting on Monday last. It must be highly satisfactory, however, to the shareholders to know that there is a cash balance of about £6000, applicable for that purpose. Hitherto it has been the custom for the directors to retain the sum of about £6000, cash balance, at least £4500, could be fairly divided among the shareholders. The mines, as I stated before, are in a most prosperous condition, and gone on gradually improving for several years past, and at the present time have larger reserves of tin and copper than any other mine in Cornwall, with the exception of Dolcoath. It may not be generally known that the encroachment of the adjoining company—Cook's Kitchen—on the boundary of Tincroft, has laid open a most valuable piece of ground for the latter company, while Cook's Kitchen company will probably have to refund a very large sum of money for the tin they have taken away. Tincroft, according to all present appearances, will be a profitable concern for very many years to come, and from the sterling character of its merits will always command a good price in the market; at the present time, however, it is selling for less than one-half the amount of either South or East Caradon, while it is paying better dividends; and no one at all conversant with the respective properties would, I presume, venture to say that the former possesses any advantage in the prospect of a permanency of prosperity.

ILLOAN MINES, adjoining Tincroft: A preliminary meeting of the shareholders of these mines was held at the Tincroft office, on Thursday last. If any new mining adventure ever held out good prospects, this set certainly does. As I have on a former occasion stated, it contains a portion of the celebrated Carn Brea, Tincroft, and Cook's Kitchen Mines. An engine is now being erected, and already some most promising lodes have been discovered. The shares are held by the principal shareholders in Tincroft. WHEAL GRYLLS have been in good demand, at higher prices. There is not a mine in Cornwall, raising the quantity of tin that this mine does, selling at half so little a price. The shares are really cheap at 35 $\frac{1}{2}$ to 40 $\frac{1}{2}$, and nothing but the most dire accident can prevent their ultimately going to a higher rate than either of these quotations, while the current price is less than 30 $\frac{1}{2}$. The mine is in 124 shares only. A dividend of 20s. will be declared during the current month. Very strong attempts have been made to get down the price of LUDCOTT. The public frequently sell when they ought to buy. In this instance, however, the decline has taken place principally from absence of buyers. A few bona fide orders to buy would cause an immediate reaction. The next sale of silver and lead ores will be much better than the last, which rallied about 2900 $\frac{1}{2}$. A dividend of 10s. will be declared in the early part of January, 1863. The shares should be bought largely at the present low price. NORTH MINERAS have been largely dealt in during the week, and the price has been fairly sustained. EAST CARN BREA, GREAT SOUTH TOLQUHON, WHEAL UNION, GREENVILLE, and GREAT RELLACK, have all receded, although no change has taken place in their prospects—in fact, Great South Tolquhon may be said to be improving. Intelligence has reached town to-day of the death of Mr. G. J. Tyre, one of the directors of the Tincroft Mining Company. This gentleman held about 3000 shares. In anticipation of these shares coming on the market, the price may be temporarily affected, but this can in no way affect the intrinsic value of the property. With regard to the above shares, they may not come on the market at all, and, in fact, it is more than probable they will not; but if they do, it will afford an opportunity to capitalists to invest their capital in a safe security, which will pay them a large percentage for their outlay. A dividend of 5s. has been declared to-day by the directors, leaving 4500 $\frac{1}{2}$, to be dealt with by the shareholders at the next meeting; while the mines are making good monthly profits, and likely to continue to do so for ten years to come, and probably many years beyond that.

WHEAL GRYLLS.—E. Rogers, J. Pope, Dec. 4: Fisher's Lode: At Annie's and the flat-rod shaft we have got an increase of water, insomuch that we have been obliged to drop a larger lift at the flat-rod shaft; the shaftmen have been engaged about this work during the past week. At the 30, east of Annie's engine-shaft, the lode is 18 $\frac{1}{2}$ ft. wide, worth 8 $\frac{1}{2}$ per fathom. In the stops in back of this level the lode is worth 12 $\frac{1}{2}$ per fathom. and the 30 end, east of the flat-rod shaft, has been very little done since last reported on of the increase of water. The rise in the back of this level, west of the flat-rod shaft, is communicated to the 20. In the 20 end, east of the flat-rod shaft, the lode is worth 4 $\frac{1}{2}$ per fathom, and the 20 end at 12 $\frac{1}{2}$ per fathom. In tin mines only a moderate amount of business has been done. TINCROFT shares have fallen to 15 $\frac{1}{2}$, consequent on the death of Mr. G. J. Tyre, and the 150 will soon be reached. and the 150 will be driven to the 160 fms. level, and the 160 will be driven to the 170 fms. level, and the 170 will be driven to the 180 fms. level, and the 180 will be driven to the 190 fms. level, and the 190 will be driven to the 200 fms. level, and the 200 will be driven to the 210 fms. level, and the 210 will be driven to the 220 fms. level, and the 220 will be driven to the 230 fms. level, and the 230 will be driven to the 240 fms. level, and the 240 will be driven to the 250 fms. level, and the 250 will be driven to the 260 fms. level, and the 260 will be driven to the 270 fms. level, and the 270 will be driven to the 280 fms. level, and the 280 will be driven to the 290 fms. level, and the 290 will be driven to the 300 fms. level, and the 300 will be driven to the 310 fms. level, and the 310 will be driven to the 320 fms. level, and the 320 will be driven to the 330 fms. level, and the 330 will be driven to the 340 fms. level, and the 340 will be driven to the 350 fms. level, and the 350 will be driven to the 360 fms. level, and the 3

convenient for dismissing the tinstuff into the stamps, passes on one side of the engine-house, as Knight's is for the other. We hope to sell, on Friday, 120*t.* worth of tin for month, with 14 very light heads, going by water. The completion of the steam-stamps is progressing most rapidly, and as the underground yield, in respect to quantity, appears quite likely to exceed all previous expectation, we must immediately set up additional heads. Then it is unnecessary to say that, should the tinstuff in bulk approach the opinion of the inspectors, as to value per ton of stuff, we have certainly before us one of the most valuable tin mines in the county, taking extent and requirements into account.

CROOKHAYEN.—H. Thomas, Dec. 1: Saturday last we began the setting-out for December, I beg to hand you the following report:—The engine-shaft is 8 fms., 1 ft. under the 60 fm. level; set the shaft to nine men, at 12*t.* per fathom; the ground in the shaft is composed of friable quartz, flockan, mundic, and spots of yellow copper ore. The ground is perpendicular, and if anything more compact. In the intersections, or joints, strong native copper is detected. I think we are near a change for the better. The 60 cross-cut south is driven 18 fms. from the shaft, set 6 feet to four men, at 6*t.* The dip of ground in this end took a sudden change in the past few days from south to north, about 3 feet in a fathom. It is again changed to the regular south underlie, and from the appearance and change I think a lode is near at hand, probably the gossan lode. We had to stop the engine on Saturday afternoon for the purpose of cleansing and making some alterations which were necessary to be done. I am glad to say 2 cwt. of coals are saved in 24 hours by the change made.

CROWAN CONSOLS.—J. Seymour, Dec. 4: The lode is still increasing in size, and is from 20 inches to 2 feet wide, yielding beautiful stones of black and yellow copper ore. We have a few kilobins of very rich ore now to be seen at the surface, and it must certainly give great encouragement to everyone that has an interest in this mining property.

CROWN LWM.—J. Roach, Dec. 3: Where the men are now working the level is directed to be driven under the farmhouse, where it is said that large stones of ore have been dug up; this level contains patches of miltstone grit, and at surface over it there are blocks of quartz of very great dimensions—I should say 5 tons each. The lode must exist, and no doubt we shall soon find it.

CUDDRA.—F. Puckey, E. Dunstan, Dec. 4: In the 75, east of Walker's shaft, we are still driving north, to cut through the lode. We have driven 2 fms., with no appearance of the north wall. As far as seen the lode is very hard, which makes it not easy for driving. The lode in the stopes in the back of this level is still very large, and producing work for tin of about the same quality as stated in our last report.

CWMHEISIAN (Gold).—Capt. Williams, Dec. 1: East Mine Shaft: We have sunk 10 ft., boles making a plat, and cutting down perpendicular on east side 2 fms. We are preparing tackle for winding; the water increases.—West Mine: Some good lumps of galena have been obtained from the roof. Waterfall Lode: We have driven the adit 9 ft. We have re-set to drive at 14*t.* per fm.; the ground is a little closer, with a little galena now and then. Dressing-doors, &c.: The wheel and crushers I hope to complete this week. The machinery has arrived. We shall push on, as per instructions, with Mr. Mitchell's machinery, which has all arrived.

DEVON AND CORNWALL.—T. Nell, Dec. 3: At George's Charlotte, in the deep adit level east, no lode has been taken down since last reported on. In the rise, and also in the stops, in back of the deep adit the lode is worth 5 tons of ore per fm. In the cross-cut north, at the midway level, the ground is favourable, and contains small strings of ore, leading towards the lode. We are progressing satisfactorily with the water-wheel, work in shaft, &c.—William and Mary: The lode at the engine-shaft still looks well, producing 8 tons of ore per fm. The lode in the 92 west will produce 2 tons of ore per fm.; in the rise in back of this level the lode is worth 4 tons of ore per fm. In the 22 east there is no change to notice; in the cross-cut north at this level we have intersected a lode 3 ft. wide, underlying north, and worth from 2 to 3 tons per fathom, running parallel to the lode driven on; we shall at once commence cross-cutting from this present end to intersect it. The lode in the winze in bottom of the 10, and also in the stops in back of this level, produces 4 tons of ore per fm. In the 12, west of water-wheel shaft, no lode taken down since last reported. No change in any other part.

DEVON WHEAL BULLER.—Wm. Stephens, Dec. 3: The sinking of Down's shaft progresses favourably. The men at the 55 east have almost completed the plat. I took the men yesterday that were in the 45 west and put them to drive west at the 55 on the course of the lode, from which they broke some good stones of yellow copper ore, such as I have not seen here before.

EAST AGAR.—F. Pryor, W. Johns, Nov. 27: We are now in a position to put the engine in the house, which will be done with all speed. The water being in we cannot report on the levels, nor do we see it necessary to spend money in keeping the water by manual labour, when it will be saved on our completing the engine.

EAST BRONFLOYD.—C. Williams, Dec. 3: The lode in the steep west end of engine-shaft is 8 ft. wide, consisting of slate, spar, jack, and ore, yielding of the latter 1 ton per fathom. The lode in the 10, east of engine-shaft, continues much the same in appearance as for some time past, being from 30 to 31 ft. wide, composed of quartz, jack, slate, and ore, worth of the latter 22 cwt. per cubic fathom, or equal to 14*t.* 1*s.* price for driving, 12*t.* per fm. The ground in the engine-shaft is very favourable for sinking, and the men are making good progress. Some little delay on Mr. Green's part prevented us from having the crusher at work, but I hope that all will be right in a day or two. Now the frost is over, and the fixing of the dressing machinery is being resumed, we shall soon have all completed. The drawing and pumping machinery is working very satisfactorily.

EAST BROOKWOOD.—W. V. Williams, Dec. 4: If the ground continues as favourable for driving as it now is, I hope by the end of this month we shall cut the lode in the cross-cut now driving. We are meeting with branches underlying towards the lode, containing copper and mundic. I intend to attach a drawing-machine to our present little wheel, and run a chain therefrom, through the same level the rods are carried through; this will greatly facilitate the drawing away the stuff.

EAST CARN BREA.—T. Gianvillo, J. Scholar, Dec. 3: Middle Lode: In the 60, west of cross-cut, the lode will produce 2 tons of ore per fathom. In the rise in back of the 60 the lode will produce 1 ton of ore per fathom. In the 50, east of the cross-course, the lode will produce 1 ton of ore per fathom. —New Lode: In the 50, west of cross-cut, the lode will produce 2 tons of ore per fathom. In the rise in back of the 50 the lode will produce 1 ton of ore per fathom.—South Lode: In the 50 west the lode will produce 2 tons of ore per fathom.

EAST CLOGAU.—Capt. Roberts, Dec. 1: I beg to hand you a report of our setting last Saturday, together with the quantities of ground driven in each level from the commencement. No. 2 level, on St. James's lode, has been driven under cover 20 fms., 1 ft., set to six men, at 11*t.* per fm. The lode is 9 ft. wide, composed principally of aueriferous quartz, and occasionally spots of copper. I am anxious to see an adit level driven to come right under the No. 2 level—say 9 or 10 fms. lower down, in order to prove the lode at a greater depth. No. 1 level, on St. David's lode, has been driven 21 fms., 5 ft., set to six men, at 5*t.* per fm.; this lode is 3 ft. wide, containing quartz and spots of copper, offering good indications of gold. No. 2 level, on St. David's lode, has been driven 23 fms., 2 ft., set to six men, at 6*t.* per fm.; the lode presents just the same hopeful appearance as for several weeks past. We have not yet cut St. John's lode in No. 1 level.

EAST DARREN.—Dec. 2: At Taylor's shaft in the 11*t.* cross-cut, driving north, the rock is composed of a dark blue clay-slate, which is favourable for driving. In the 10*t.* east the lode is unproductive, and still disordered by broken up ground; in the same level west the lode is large, principally composed of hard porphyry, blonde, carbonate of lime, and lead ore, producing of the latter about 6 cwt. per fm. In the 92 east the lode is from 4 to 5 feet wide, principally composed of porphyry and blonde, producing from 5 to 6 cwt. of lead ore per fm. There is still a good deal of water issuing from the forehead, which looks promising for an improvement shortly. In the 92 west the lode is from 2 to 3 feet wide, principally composed of light clay-slate, blonde, and stones of copper and lead ore, but not sufficient to value. In the 80 east the lode is composed of clay-slate, underlying south about 3 feet per fm., producing about 10 cwt. of lead ore per fm. In the 68 east the lode is from 5 to 6 feet wide, composed of a light clay-slate, carbonate of lime, not looking quite so well for lead ore as when last reported, now producing about 1*t.* 1*s.* per fm; in the rise over this level the lode is large, producing about 1 ton per fm. All the stopes and pitches continue to yield their usual quantities of ore. We have to-day sample 95 tons of good quality silver-lead ore.

EAST DEVON GREAT CONSOLS.—T. Richards, Dec. 2: In the 70 west the lode is 2 ft. wide, of a promising character.

In the rise in the back of this level the lode is worth 3 cwt. of lead per fm.

The lode in the 40 south looks more promising for lead than the 40 north, and we expect it to improve as it gets out of the elvan into the killas,

the 40 east is improving; the lode which had failed

is larger, and yields good stones of ore, and we expect a further improvement shortly.

EAST GUNNIS LAKE AND SOUTH BEDFORD.—J. Phillips, Dec. 4: We have

holed the 46, east of incline shaft, with No. 8 winze. We have taken down some more of the lode in the 36, and find it still worth 4 tons of good ore per fm. There is no other alteration to notice.

EAST ROSEWARNE.—J. James, Nov. 29: There has been no lode taken down in Hallett's shaft since last reported. In the 55 east the lode is from 6 to 8 in. wide, producing stones of ore. The stops over this level are worth 12*t.* per fm. In the 55 west the lode is 1 ft. wide, worth 10*t.* per fm. We must conclude that this lode will vary in width and value, but there is every indication of a good run of ore ground before us. The stops over this level is worth 10*t.* per fm. In the 49 winze, which is down about 5 fms., and 4 fms. beyond the 55 end, the lode has greatly improved, now about 1 foot wide, worth 10*t.* per fm. The 45, east of cross-cut, on the south lode, has a kindly appearance; lode 15 in. wide, producing stones of mundic and copper ore. I think there is a good prospect of this lode improving as we approach the elvan course.

EAST TRESKERBY.—J. Nancarrow, Nov. 29: Both cross-cuts are being pushed on as fast as possible, but without any material alteration in either, except that the water has increased in the 55. In the 40 west the lode is in an unsettled state, but yields a little ore, and we expect it to improve as it gets out of the elvan into the killas, as was the case in the eastern end. The 40 east is improving; the lode which had failed is larger, and yields good stones of ore, and we expect a further improvement shortly.

EAST WHEAL FALMOUTH.—W. Hancock, Dec. 2: There is no change to notice in the underground department since my report for the general meeting. We have suspended the driving of the adit level east for the present, and have set the bottom level, west of shaft, to three men and three boys, at 3*t.* per fm., stabled 3 fms. We have also set the six sumptuous and three labourers' lodes to cut shaft plait and barrow-road at the 15, or bottom level, for 11*t.* 1*s.*, and as soon as the latter is completed the said men will commence sinking for beaver and cistern, when no time will be lost in sinking the shaft 12 fathoms below its present bottom. We shall not be in a position to drive the bottom level east until the pit is completed. Two cart loads of rough jack will be sent to Devon to-morrow (if I can get carts), and I hope it will turn out satisfactory.

EAST WHEAL GREENVILLE.—G. R. Odgers, Wm. Bennett, Dec. 1: The engine-shaft to sink below the 55, at 50*t.* per fm.; lode 3 ft. wide, of mundic, ore, and tin, embedded in chlorite, quartz, and peat, presenting a strong and masterly appearance. The 55 east, to four men, at 50*t.* per fm.; lode 18 in. wide, yielding a little ore and tin. The 55 west, to six men, at 60*t.* per fm., where the lode is composed of precisely the same characteristics as it did in the 45, before meeting with the bunch of tin. The 45 east, to four men, at 60*t.* per fm.; lode 18 in. wide, producing saving work for tin. The 45 cross-cut south, to six men, at 50*t.* per fm.; from the underlie of the lode as seen at the surface, we ought to have met it ere this, but the end is letting out much water, and which is very strong; therefore we think we are near it. The rise above the 45, by two men, at 60*t.* per fm.; lode worth 6*t.* per fathom. The winze below the 45 west, by four men, at 60*t.* per fm.; lode worth 10*t.* The 45 west, to four men, at 50*t.* per fm.; lode worth 6*t.* per fm. Two stops above the 45 west, by six men, at 50*t.* per fm.; lode worth 8*t.* per fm. A stop above the 35 east, by four men, at 27*t.* per fm.; lode worth 5*t.* per fm. We are getting on very well with our tin.

—G. R. Odgers, William Bennett, December 2: We beg to inform you we are glad to say that this morning we have picked into the lode at the 45 cross-cut south, where we find good spots of yellow ore, with excellent work for tin; so far as we can see it is a kindly lode, but we shall not be able to state its size or value for a day or two. It is gratifying to find such good work for tin in it.

—Telegraph: Dec. 5: The new lode is worth 10*t.* per fathom for tin, and looking very promising.

EAST WHEAL MARTHA.—J. Richards, Dec. 4: We continue to drive by the side of the lode in the adit level, east of the engine-shaft, for more speedy progress. The lode when cut into last was of large size, composed of rossan, quartz, and capel, of the very finest description, plainly indicating a course of ore below.

EAST WHEAL RUSSELL.—J. Goldsworthy, Dec. 3: There is no change to report on throughout the mine since the report for the meeting. The progress throughout the several bargains is favourable.

EAST WHEAL TOLGUS.—Dec. 3: Hedruth Consols Lode: At John's shaft, sinking below the 82, the lode has not been taken down since last reported. We have intersected another small branch in the 82 cross-cut north, about 2 in. wide, spar dropping towards the lode. The lode in the 34 east is 15 in. wide, composed of spar, peach, and mundic—ground easy. The lode in the adit level, east of new shaft, is 1 ft. wide, consisting of spar and mundic. The ground in the adit cross-cut, south of new shaft, is moderately easy, and the end letting out a quantity of water. The lode in the old well is 2*t.* 6*s.* wide, composed of gossan, flockan, pyran, spar, and mundic.—The lode must be at a deeper level, and if the water continues to increase as it has in the past week we shall recommend the driving of a cross-cut at the 34, to intersect it. We cannot say what distance we shall have to drive, but will ascertain in a day or two.

GAWTON.—Geo. Rowe, Nov. 29: We still continue to open on the lode in the back and side of the 36, both east and west, where it is improving, and producing better quality ore, to the amount of from 6 to 8 tons per fm. There is no change in the appearance of the lode in the 36 west during the week. We weighed off yesterday 96 tons 19 cwt. 20 qrs. of copper ore.

GOGINAN.—Dec. 2: The four lodes in the 100 yield from 9 to 14 cwt. of lead ore per fm. The lode over the 60 produces about 12 cwt. The lode over the 12, 8 cwt. The lode in the 80 yields pretty good saving work. At Level Newydd we are progressing favourably with the new shaft; this work is being pushed on as fast as possible.

GREAT ADARON.—F. C. Harper, Dec. 3: In my report for the last meeting, dated Aug. 26, I informed you we were then just passing through a hard floor of ground, which we found rather more than 4 ins. thick. Since then I am glad to inform you the ground has been made more easy for exploring, and that the men have made favourable progress with sinking of the shaft below the 40; we are now 19 fms. 4*t.* below the 40—sinking by nine men, leaving only 2 ft. to reach the required depth for cross-cutting from said shaft; this I need scarcely say will be accomplished, when no time will be lost in cutting flat at this point, and the shaft divided from the 40 to bottom. After this we must place a full party of men in the cross-cut north, and extend it away to the boundary with all possible dispatch, it being not only my opinion, but that of many others, that some of the East Adaron lodes are to be found in this piece of ground. Washall also drives south to intersect the lode passed through in the upper level. No change whatever will be required in the pitwork for the present.

GREAT NORTH DOWNS.—T. Trevillion, Dec. 2: The ground seems more promising for lead than the 127, and also becoming wet, which indicates our getting through the silty ground in the 117 is 2 ft. wide, and is worth for lead about 9 cwt. per fm. There are four stops in the 106 is at this time poor, being interrupted with a slide. There are 7 stops in the 82 is 3 ft. wide, and will yield 20 cwt. of lead per fm. We have no slopes working in either the 82 or 70; nor do we intend to stop in this direction for some time to come.

HAWKMOOR.—J. Richards, Dec. 2: The lode in the 50, west of the eastern engine-shaft, is 1 ft. wide, composed of capel, quartz, and spots of mundic. In the 50, west of Graham's shaft, the lode is 1*t.* 6*s.* wide, composed of capel, quartz, and spots of mundic. We sampled Friday last 24 tons of copper ore.—West Hawkmoor: No. 3 lode in the adit level, driving west is 2 ft. wide, composed of capel, quartz, and saving work for tin ore—a very promising lode. The lode in the stopes in the back of this level is from 4 to 5 ft. wide, composed of capel, quartz, peach, and saving work for the ore.

HERODSDOFF.—T. Trevillion, Dec. 2: The ground seems more promising for lead than the 127, and also becoming wet, which indicates our getting through the silty ground in the 117 is 2 ft. wide, and is worth for lead about 9 cwt. per fm. The stops in the 106 is at this time poor, being interrupted with a slide. There are four stops in the 82 is 3 ft. wide, and will yield 20 cwt. of lead per fm. We have no slopes working in either the 82 or 70; nor do we intend to stop in this direction for some time to come.

HOLMBOURGH.—R. Pryor, T. Woolcock, J. Borlase, Dec. 1: In the 175, east of the lode is yielding good stones of copper ore. We have set the 175 to drive west of the adit side to day. From the appearance of the lode we expect early improvement. The 175, west of shaft, is opening up tributary ground. The winze sinking below the 160, west of shaft, is looking much the same as when last reported, worth 50*t.* per fm. In the stops in back of the 160 the lode is worth 20*t.* per fm. In the adit driving east of Huie Down shaft, the lode has a promising appearance, and letting water freely in bottom of the level. The water copper ore weighed off last Friday 21*t.* per fm.

HUNTINGDON DOWNS.—T. Richards, Dec. 3: The 110, west of Morris's engine-shaft, continues to be worth full 30*t.* per fm. The lode in the 100 is west of shaft is exceedingly promising, producing some rich ore, and the ground easy for progress.

HOLMBUSH.—R. Pryor, T. Woolcock, J. Borlase, Dec. 1: In the 175, east of the lode is yielding good stones of copper ore. We have set the 175 to drive west of the adit side to day. From the appearance of the lode we expect early improvement.

KELVIN.—R. Pryor, T. Woolcock, J. Borlase, Dec. 1: In the 175, east of the lode is yielding good stones of copper ore. We have set the 175 to drive west of the adit side to day. From the appearance of the lode we expect early improvement.

KELVINGRASS.—R. Pryor, T. Woolcock, J. Borlase, Dec. 1: In the 175, east of the lode is yielding good stones of copper ore. We have set the 175 to drive west of the adit side to day. From the appearance of the lode we expect early improvement.

KELVINGRASS.—R. Pryor, T. Woolcock, J. Borlase, Dec. 1: In the 175, east of the lode is yielding good stones of copper ore. We have set the 175 to drive west of the adit side to day. From the appearance of the lode we expect early improvement.

KELVINGRASS.—R. Pryor, T. Woolcock, J. Borlase, Dec. 1: In the 175, east of the lode is yielding good stones of copper ore. We have set the 175 to drive west of the adit side to day. From the appearance of the lode we expect early improvement.

KELVINGRASS.—R. Pryor, T. Woolcock, J. Borlase, Dec. 1: In the 1

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of No. 3 shaft, is split into branches, each producing copper, but not to value; driving by four men, at 62 per fathom. The lode in the 58, east of No. 3 shaft, is 3 feet wide, producing rich stones of copper ore, but not to value; driving by four men, at 81 per fathom. The lode in the 58 west is worth 35/- per fathom for copper ore; driving by four men, at 41. 10s. The lode in the winze below the 58 is 18 in. wide, composed of quartz, mica, and copper ore, but not to value; sinking at 51. per fathom (sunk 4 fms.) The ground in the new engine-shaft is hard ironstone; sinking by nine men, at 23. per fathom—sunk 29 fathoms from the surface. We sampled on Wednesday last 19 tons of copper ore.

YARNER.—R. Barkell, Dec. 3: The air in the 30 east, on north lode, has been had, and our progress there has been slow; the lode maintains its size and character. The lode in the 40 west, on south lode, is producing stones of ore occasionally, but not enough to value. The 40 east will produce about 2½ tons per fm. The two stopes in bottom of the 30 will average 3 tons per fm. each. The shaftmen will finish cutting plat and putting in penthouse this week, when we shall be in order to sink the shaft another lift.

* * * With this week's JOURNAL is given a SUPPLEMENTAL SHEET, which contains a Plan of the Devon Great Consols District; On Peat Fuel; Meetings of the Alten, Prosper United, and Tincroft Mining Companies; Foreign Mining Reports; Plans and Particulars of the North Pool Mining District, &c.

* * * We shall next week, in a SUPPLEMENTAL SHEET, publish a Paper on the PROCESSES OF MINING ON THE PACIFIC COAST, and several other matters, now necessarily omitted.

THE ANNUAL REVIEW OF MINING.

BY J. Y. WATSON, ESQ., F.G.S.

This valuable epitome of Mining Progress is in course of preparation for 1862, being the Nineteenth Year. Purrs, agents, and others concerned, are requested to forward all their information, with as little delay as possible, either to our office, or to Mr. Watson (Watson and Cull, St. Michael's-alley), that complaints may not be made of defects or omission.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, Dec. 5, 1862.

| COPPER. | s. d. | | BRASS. | Per lb. |
|-------------------------------|----------|----|--------|---------|
| Best selected... p. ton | 101 | 0 | 0 | — |
| Tough cake..... | 98 | 0 | 0 | — |
| Title | 98 | 0 | 0 | — |
| Burns' Burra | 98 | 0 | 0-99 | 0 0 |
| Copiapó | 98 | 0 | 0 | — |
| Copper wire | p. lb. | 0 | 1 | 1½ |
| ditto tubes | 0 | 1 | — | — |
| Sheathing & bolts.. p. ton | 105 | 0 | 0 | — |
| Bottoms | 110 | 0 | 0 | — |
| Old (Exchange) | 91 | 0 | 0 | — |
| IRON. | Per Ton. | | | |
| Bars, Welsh, in London. | 6 10 | 0 | — | — |
| Ditto, to arrive | 6 10 | 0 | 6 15 | 0 |
| Nail rods | 7 | 0 | — | — |
| " Stafford, in London | 7 | 6 | 7 | 10 |
| Bars ditto | 7 | 5 | 0 | 8 |
| Hoops ditto | 8 | 5 | 0 | 8 10 |
| Sheets, single | 9 | 0 | 0 | 9 10 |
| Pig, No. 1, in Wales .. | 3 | 0 | 0 | 4 1½ |
| Refined metal, ditto .. | 4 | 0 | 5 | 0 0 |
| Bars, common, ditto .. | 5 | 10 | 0 | — |
| Ditto, merchant, in Tees .. | 6 | 10 | 0 | — |
| Ditto, railway, in Wales .. | 6 | 12 | 6 | 5 15 |
| Ditto, Swed. in London. | 11 | 15 | 0 | 12 10 |
| To arrive | 11 | 15 | 0 | 12 10 |
| Pig, No. 1, in Clydes | 2 | 15 | 6 | 2 18 |
| Ditto, f.o.b. in Tees | 2 | 8 | 0 | 2 10 |
| Ditto, f.o.b. in Tees | 2 | 5 | 0 | — |
| Staffordshire Forge Pig. | — | — | — | — |
| Welsh Forge Pig | — | — | — | — |
| LEAD. | | | | |
| English Pig | 21 | 0 | 0-21 | 15 |
| Ditto sheet | 21 | 15 | 0 | — |
| Ditto red lead | 22 | 0 | 0 | — |
| Ditto white | 28 | 10 | 0-30 | 0 |
| Ditto patent shot | 23 | 0 | 0 | — |
| Spanish | 20 | 5 | 0-20 | 10 |

* At the works, £s. to 1s. 6d. per box less.

REMARKS.—During the past week the London metal market has remained quiet, nothing of an unusual character having transpired to distract it, and prices for the most part are unaltered; only a limited amount of business has been transacted for shipment, and orders for home consumption are much fewer of late.

COPPER.—English manufactured is without improvement, and sales have been made in the week at 10d.; there is not, however, much to be bought at this figure. In unwrought a steady demand exists for home consumption, but for shipment scarcely any. Foreign very difficult of sale at reduced quotations. Sellers remain quiet, while the easy money market enables them to hold cheaply, but should money become dearer, doubtless a good deal now kept back would be thrown on the market. Burns' Burra declined to 98/-, 99/-; Kapunda, 99/- to 100/-; Chili, 87/-; Spanish, 88/-.

YELLOW METAL in fair ordinary request at about 8½d. for braziers sheets, and 8½d. sheathing.

IRON.—Railway bars have considerably fallen off in demand; manufacturers now quote 52. 12s. 6d., delivered f.o.b. in Wales. Merchant bars rather less required for, and prices remain as before quoted—61. 10s. to 62. 15s. in London, and 57. at the works. Staffordshire makes in steady request at full prices. Swedish bars are in greater supply, the arrivals of late having been heavy, and prices somewhat easier; sellers of good ordinary specifications still quote 11L. 10s. Scotch pigs have not altered during the week; market very quiet—55s. 6d. to 55s. 9d., mixed numbers.

SPELTER.—Rather more animation has been visible in the spelter market than for some weeks past, and several parcels have changed hands at about 18/-, which price is steadily maintained. The stocks on Dec. 1 amounted to 5861 tons, having been augmented by about 1300 tons since Nov. 1. This heavy stock militates against any great advance in price.

ZINC.—In good request at quotations.

LEAD.—English pig slow of sale; good ordinary soft quality, 21/-; WB, 21½. 15s., and business done. Manufactured lead in very limited demand. Spanish pig, 20/- 5s.

TIN.—More business has been doing in foreign during the week, and the market is steadier in consequence, sales having been effected in Straits at 117/- cash, and 118/- three months prompt. Banca has also improved, and is now firm at 119/- to 119. 10s.; reported to have advanced to 69/- in Holland.

TIN-PLATES steady at 22s. 6d. for IC coke. A fair demand exists for shipment to America and the Continent.

STEEL.—Swedish keg remains without alteration at 15L. 10s. to 16L.

QUICKSILVER 7l. per bottle of 75 lbs.

GLASGOW, DEC. 1.—Our pig-iron market has not been subject to any important fluctuations during the past month, the extreme range of prices not having exceeded 1s. 1½d. per ton. Opening quietly at 56s. 3d. cash for mixed numbers warrants, it soon became evident that above that point sellers would predominate, and under it that buyers would prevail; so that although the subsidence of the excitement relative to the question of intervention led to frequent and extensive realizations, a ready market was found for all that was offered without much concession in price being requisite, owing to the confidence still existing in some quarters regarding the stability of our market. In the trade generally we cannot discern much trace of this feeling, and were it not that the question of labour stands prominently forth as one that may be long eventuate in a contest between employer and employee, there would be still less. While on this subject it is worthy of remark that in some of the coal districts of the South the trade is so dull that the colliers have only two days' work in the week, while here they are fully employed, and at good wages. They are now demanding better, with what success remains to be seen. The consumption of iron in this neighbourhood continues on a large scale, the various shipbuilding yards, rolling mills, &c., being fully employed. Amongst the founders there is less activity, but no absolute dulness. In our exports there is a falling off for the month of 10,409 tons; the returns were, in—Nov., 1862.

Now, 1862.

Foreign..... 15,698 33,095, against [Foreign..... 18,344] 33,095, against [Coastwise..... 25,160] 48,504 tons.

For the eleven months of this year, the decrease is 38,439 tons. The number of far-mess now in bust is 12%, being an increase of seven since our last enumeration. The quantity of iron in storekeepers' yards now amounts to 262,700 tons. "Warrants" for which are in circulation to the extent of 558,400 tons. The minimum price for the month was thes. 7½d.; the maximum, 56s. 9d.; and the average, 56s. 2¾d.; against 49s. 3d. in November, 1861.—ANDREW WOODROW AND SON.

BOSTON, NOV. 17.—The arrivals of Pictou and Sydney coal continue to be delivered on contract. Anthracite has been in steady demand at \$8 50 c. per ton. We continue to notice a very firm market for pig-iron, with sales of Scotch No. 1 at \$35, and American No. 1 at \$35 to \$37 per ton, cash. Bar-iron is firm, and the sales have been in small lots, but at full prices. In Russia sheet-iron there have been sales of 400 packages, at 15½c. per pound, cash.

NEW YORK, NOV. 19.—The market for domestic coal is firm, with a good demand for home use and the East; the receipts have not been large; sales from yard at \$8 50 c. to \$9. In forest there is little change of movement; the supply is better; sales of 150 tons of Kirkles, Hall Canal, and 1640 tons. Welsh steam on private terms; 450 tons Scotch steam at \$8 50 c., and 300 tons West Hardy steam, ex ship, \$8 57½ c. cash. The supply of all kinds of iron is very small, and the market is buoyant, small

sales of Scotch pig at \$32 50 c. to \$33 50 c., cash, but most holders ask more money. American pig is scarce, and prices irregular; small sales are making at \$32 to \$32 50 c., but no contract for future delivery could be made short of \$34 to \$35 per ton. English bars are firm at \$65 to \$67 50 c. for common, and \$76 to \$80 for refined, and English sheet at 5 c. to 6 c. for singles, doubles, and triples. Russia sheet is steady at 17 c. Of English rails, sales of some 300 tons have been made at \$63.

THE TIN TRADE.—Mr. N. Breebaart (Goll and Co., Amsterdam), under date Nov. 29, writes:—During the entire course of this month the market has remained in a very depressed state; transactions have been quite insignificant, and the price has undergone a sensible reduction. Business has been confined to some small purchases for actual wants, first at 65/- fms., and upon the reduction of 4/- for English tin, at 68 fms. It was only towards the end of this month that a further concession gave rise to a sale of 500 slabs at 67½ fms., a price at which there are, however, buyers to-day. This fall has come unexpectedly. The speculative sales, which in the preceding month advanced prices, had no solid foundation, and could not be supported in the presence of the dulness which has prevailed already for such a length of time in all branches of trade.

Stock of Banco tin on warrants on Oct. 31 Slabs 80,985 74,683 81,352 Deliveries in Nov. 7,265 12,555 11,288

Stock on warrants Nov. 29 73,690 62,028 69,964 Stock in the hands of Trading Society, for annual sale. 57,995 57,250 61,061

Certain advices have been received that the large shipments of Straits tin for Europe have ceased; recent accounts have also confirmed the loss of a transport vessel with 16,000 slabs of Banco tin; but as it is evident that the effects of such circumstances can only make themselves felt at a more remote period, they continue to judge the article according to its actual position. And, as at the present moment the position is not more favorable than it was two months ago, there is very little ground to expect any immediate activity, especially at the present season of the year, when it is not likely that the competition will extend its operations beyond absolute wants. It is, however, also possible that the sales which have latterly taken place at Singapore for China and Japan, and the very high prices which have been realised for those quarters, by preventing shipments to Europe, may have their influence, and may promote, at least for the moment, a favourable change.—P.S. 500 slabs have just been sold at 68 fms., and it appears that there are still buyers at this price.

A fair average amount of business has been transacted in the MINING SHARE MARKET this week, and, on the whole, prices have been better, and one or two mines which have been unduly depressed, owing to forced

sales of Scotch pig at 6s. per share paid up. Wheal Polmear, 28 to 30; the lode in the 15 east is reported worth 5 tons of good ore, or 40/- per fathom; and about 10 fathoms driven through it. Wheal Seton, 16½ to 17½; Wheal Trelawny, 16½ to 17½. Wheal Union, 5½ to 6; in the 20, east of old engine, the lode is worth 1 ton per fm.; the lode in the flat-rod shaft is worth 30/- per fm. Wheal Uny 7½ to 7½.

The prospectus of the Great Devon and Bedford (Colcharton) Copper Mining Company, with a capital of 25,000/-, in shares of 2½. 10s. each, and on the principle of limited liability, has just been issued, and will be found, together with a plan of the mine, in another column of this day's Journal. The object of the company is to purchase the freehold, and work the mineral property known to exist beneath the Colcharton Estate, which is situated to the south of the Devon Great Consols, and to the north of Wheal Crebor. The estate being freehold there will be no royalties or lord's dues whatever, so that a formidable charge upon the returns will be got rid of; and as taking even the mines immediately surrounding the Great Devon and Bedford, the amount paid for lord's dues has been equal to one-fourth of the dividends paid to the shareholders, the advantage will be manifest. The lord's dues paid by the Devon Great Consols would have been sufficient to pay nearly 170/- per share to the adventurers. The company is to pay 15,000/- for the freehold of 67 acres, and all the minerals beneath it; and so confident are the vendors of success that they have agreed to take up one-third in paid-up shares.

A Cost-book Company, in 1024 shares, upon which a deposit of 11 per share is payable, has just been formed for working Wheal Curtis, which is situated in the parish of Crowan, at a convenient distance from several shipping ports. The sett extends 700 fathoms on the course of the lodes, and 400 fathoms from north to south. There are four known lodes in the sett, well defined, and running through a stratum of clay-slate. The lodes are very nearly parallel with those of Wheal Abraham and Crever, which from forty to fifty years since yielded such vast quantities of copper ore—110,000 tons were raised from one lode alone. The geological formation throughout both mines is precisely the same. It is found by careful estimate that the outside cost of developing the mine cannot exceed 12,000. The property has been carefully surveyed and favourably reported upon by Capts. Joseph and Nicholas Vivian, of North Roskear and Condurrow; by Capt. Charles of Dolcoath; and by Capt. J. Delbridge, who was agent on the mine at the former working. The prospectus, which we publish in another column, states that "the promoters offer to the public the 1024 shares, only stipulating that at the first meeting of the shareholders an adequate amount shall be awarded as a compensation for the time employed and expense incurred;" and that the reports of "Capt. J. Vivian and others, who knew the mine in its last working, together with a list of 600 shares, of which 99 are held in Camborne, 127 in Crowan, the parish in which the mine is situated, and 49 in other parts of Cornwall, may seem in the offices of the company."

The Moel Yspri Mine, which was referred to in the very excellent paper read before the British Association by Mr. T. A. Readwin, as yielding "at the rate of 8 ozs. of gold to the ton of galena," is about to be vigorously worked by the East Cambrian Gold Mining Company, which has just been formed on the limited liability principle, with a capital of 50,000/-, in shares of 12. each. The profits which may be anticipated from a lode yielding 8 ozs. to the ton can be readily calculated, when it is remembered that Mr. Readwin stated (and in this he is fully borne out by results actually obtained) that "there is no doubt that gold quartz producing from 8 to 10 dwts. per ton will pay large dividends." Provisional arrangements have been made for the purchase of the property, including the existing materials on the mine, for 5000/- cash, and 10,000/- in shares, which are not to be handed over to the vendors until six months after allotment. The vendors are so satisfied with the prospects of the company that they have left the arrangements for payment to the absolute discretion of the directors. Capt. John Parry (the agent referred to in the International Jurors' award of a Prize Medal "for the first successful result in Britain, chiefly due to their agent, John Parry, of the working of a gold-bearing vein") reports that "there is a lode which deserves especial notice, as it is a most magnificent one," and considers that "henceforward the mine may be worked at a good profit." The property has also been inspected and favourably reported upon by Mr. Septimus Beardmore, M.E.; Mr. J. H. Clement, F.G.S., F.C.S.; and by Capt. Thomas Faull, late manager of the Almaden Mines, California. The East Cambrian Mine (Moel Yspri) is bounded by the Prince of Wales and Cambrian Mines, and several of the lodes of both these mines run through it.

The prospects of the Bristol and South Wales Zinc Smelting Company has just been issued; the undertaking is constituted on the limited liability principle, with a capital of 100,000/-, in shares of 10/- each. The shares are divided into two classes—7500 A shares entitled to a preferential dividend of 7½ per cent., and 2500 B shares to be issued as fully paid up. The A shares will only be issued, the B shares (and 39,500/- in cash) being applicable to the payment of the consideration for the transfer of the six mines, colliery, plant, machinery, and buildings, 14 acres of freehold land, a proved coal field of 138 acres, free of royalty, and for the erection of 20 new smelting-furnaces, including the payment of all preliminary expenses. These B shares are not to participate in any dividend until 7½ per cent. per annum has been paid on the subscribed capital. The zinc mines are situated, two in Cardiganshire and one in Carmarthenshire, and the colliery and works are near Bristol. Hitherto the manufacturer has chiefly depended on foreign markets, and the Vieille Montagne Zinc Company has returned 25 per cent. of their share capital. The smelting trade of this country, hitherto confined to private enterprise, is well known to have yielded enormous returns.

A limited liability company, with a capital of 12,000/-, in shares of 20/- each—the Blaencennant Silver-Lead Mining Company—is now in course of formation for working the Blaencennant Mine, at Llanfihangel, about nine miles from

DEC. 6, 1862.]

Ireland Shares (7s. paid) exchanged hands at 19s. 10s., but leave off 10s. 12s. 6d., and in request. A few Carbary shares (Gurtavallig) from Cork (20s. paid), were sold at 16s. 3d. General Mining Company for Ireland (Tipperay) fell from 5s. 15s. (4s. paid) to 5s. 5s., but slightly improved, and brought finally 5s. 7s. 6d. The shareholders of the company held on Monday last their ordinary half-yearly general meeting, Alderman Carroll in the chair. A *résumé* of the directors' statement of accounts was given in last week's Journal. From the reports presented by the directors and the captain of the mines, it would appear that the market has now been established for the sale of their calamine, and that separations are being made to increase the production of it, and that the ground wrought in the extraction of calamine, and the opening up of the shafts at Silvermines, is about 211 fathoms. In another part of his report the captain states that the 15 f.m. level has intersected calamine to the extent of about 18 to 20 fms. in width, without any appearance of the walls of the deposit. Of the discovery of lead referred to at the previous half-yearly meeting of shareholders, the directors say that it will yet take some time before a positive opinion can be ventured upon, but that so far they have every reason to be extremely well satisfied with the appearances presented. A desultory conversation respecting the quantity of ore extracted from the mines each day, with the probable expense and the profits per ton, then followed; and, finally, a vote of thanks to the presiding Alderman closed the meeting.

The following are the Government Returns of the exports of articles identified with mining, the produce and manufacture of Great Britain, for the ten months ending Oct. 31, 1862; and also as compared with the ten months ending Oct., 1861; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

| DECLARED VALUE FOR THE TEN MONTHS ENDING OCTOBER 31. | | |
|--|-------------|-------------|
| 1861. | 1862. | Increase. |
| Barrel and cask | £3,127,630 | £3,197,921 |
| Hair and cutlery | 2,651,841 | £2,704,830 |
| Surgeon's instruments | 239,483 | — |
| Agricultural implements | 367,496 | £3,111,809 |
| Machinery | £1,042,898 | 1,288,054 |
| Steam-engines | 2,481,985 | 3,524,883 |
| Other sorts | 2,012,375 | £3,300,429 |
| Total | £9,504,354 | £9,810,159 |
| Iron-Pig | 908,438 | £1,098,501 |
| Bar, bolt | 1,674,626 | 1,840,150 |
| Railway | 2,628,060 | 2,379,842 |
| Wire | 160,424 | 223,243 |
| Telegraphic | 171,856 | 246,053 |
| Cast | 885,427 | 455,847 |
| Hop | 720,570 | 844,564 |
| Wrought | 1,887,206 | 8,456,805 |
| Iron-Pig | 597,399 | 688,924 |
| Unwrought | 883,082 | 490,561 |
| Pates, sheets | 1,302,390 | 1,637,616 |
| Wrought | 235,825 | 1,821,297 |
| Iron-Pig | 137,842 | 140,498 |
| Unwrought | 359,629 | 169,987 |
| Ore, Unwrought | 120,682 | 455,811 |
| Pates, sheets | 298,958 | 414,825 |
| Unwrought | 736,246 | 1,062,455 |
| Ore | 84,265 | 326,209 |
| Total | £22,121,977 | £24,066,199 |
| Less decrease—Machinery, 224,455; zinc, 546L | | 229,916 |
| Total Increase | | £1,94,221 |

At the Redruth Ticketing, on Thursday, 3645 tons of ore were sold, realising 180,366. 6s. The particulars of the sale were:—Average standard, 11s. 19s.; average produce, 6s.; average price per ton, 4f. 17s. 6d.; quantity of copper, 228 tons 4 cwt. The following are the particulars:—

Date. Tons. Standard. Produce. Price per ton. Ore copper.

Oct. 6. 3819 £123 19 0 6s. £5 3 6 £80 3 0 £85 14 6

13. 3041 122 19 0 6s. 5 4 6 ... 80 1 0

20. 6246 125 10 0 6s. 4 9 0 ... 77 12 0

27. 3602 118 2 0 6s. 5 4 6 ... 77 8 6

Oct. 4. 3645 121 19 0 6s. 4 17 6 ... 79 16 0

Compared with last week's sale the advance has been, in the standard 11. 5s., and the price per ton of ore about 1s. 6d. Compared with the corresponding sale of last month the decline has been in the standard nearly 2s., and the price per ton of ore about 2s. 6d.

At the Swansea Ticketing, on Tuesday, 1648 tons of ore were sold, realising 180,281. 15s. The particulars of the sale were:—Average standard, 97. 11s.; average produce, 18s.; average price per ton, 15s. 9s.; quantity of fine copper, 306 tons 19 cwt. The following are the particulars of the sales during the past month:—

Date. Tons. Standard. Produce. Price per ton. Ore copper.

Oct. 6. 1448 £102 6 6 13% £11 9 0 £85 14 6

13. 1405 190 9 0 15% 12 16 6 ... 85 11 0

20. 1648 97 11 0 18% 15 19 6 ... 85 12 0

Compared with the two last sales, there has been a slight decline.

On the 6th tons sold on Tuesday, 96 tons were British ores, which gave an average produce of 9 15-16, and sold at an average standard of 108. = 11s. 6d. per ton of ore; the remaining 1552 tons were foreign ores, which gave an average produce of 19s., and sold at an average standard of 11s. 6d. = 16s. 8s. per ton of ore. On Dec. 16 there will be offered for sale 10 tons, from Knockmahan, Genoa, Berehaven, Wheal Maria, Oopik, Lany, French Slag, Seville, Canobolas, Africa, Connoree, and elsewhere.

At the Wheal Bassett meeting, on Tuesday, the accounts showed a credit balance of 1892. 15s. 5d. The profit on the two months' working was 1129. 4s. 6d. dividend of 1024. 2s. (per share) was declared, and 874. 15s. 5d. carried to credit of the next account. The agents' report stated that the 110 cross-cut, east of Dennis's shaft, was expected to run Williams's south lode in the next two or three fathoms driving, and the copper pitches in the mine are not quite so productive as for some time past, but the tin pitch are improved.

At North Treskerby Mine meeting, on Tuesday, the accounts for the four months ending October showed—Balance last audit, 874. 0s. 6d.; copper and tin and sundries, 2885. 11s. 6d. = 3759. 11s. 11d.—September dividend, 424. ; cost, merchants' bills, and sundries, 2579. 15s. 6d.: leaving credit balance, 11s. 5d. The profit charging three months' cost against two months' ore was £1. 10s. A dividend of 445. 4s. (1s. 6d. per share) was declared. The late engineer, Mr. James Sims, having died, his son, Mr. John Sims, and Mr. Thos. James were appointed in his stead. Capt. Pryor, Kitto, and Tregoning reported upon the various parts of the operation. The tribute pitches throughout the mine are producing fair quantities of tin and copper, and the ends are looking more cheery than for some time past. Thos. King of London, said that the accounts were brought up to the end of October, and the shareholders could see that the ores were only credited that were sold on Sept. 26, showing their financial position to be first rate, and second to no mine in the country. Their ores sold on Thursday last amounted to 2411. 5s. 7d., which, with a weight of 3000. worth of tin, would go to the credit of the next account, out of which a dividend would be declared. He was the largest shareholder, and, so far as he was concerned, he should like to see the miners worked fairly, and he should advocate regular payments of ore, so that they may receive permanent and substantial dividends.

At the Tincroft Mine (special) meeting, on Monday (Mr. J. Field in the chair), it was unanimously resolved that the company should be registered under the new Stock System. Details in another column.

At Craddock Moor Mine meeting, on Nov. 27, the accounts showed a balance of 1171. 11s. 5d. They purpose to sell about 20 tons of copper ore for the next two months.

At the Gonamone Mine meeting, on Nov. 27, the accounts showed a balance of 217. 14s. A call of 2s. 6d. per share was made.

At Great Work Consols Mine meeting, on Nov. 25, the accounts showed a balance of 235. 8s. 2d. The lodes in the ends throughout the mine are looking better than for several quarters past. They have 11 tutwork bargains working by 58 men and 72 tribute pitches working by 182 persons, at 1s. 2d. in 11, at 60. per ton of tin, and 10s. in 11, at the present price of tin. The quantity of tin sold is 71 tons 1 cwt. 1 qr. 1 lb., average price per ton, 73. 8s. 6d.

At Yarner Mine meeting on Nov. 28 (Mr. G. Grant in the chair), the accounts showed a debit balance of 814. 12s. 10d. A call of 1s. per share was made.

At Dylife Mine meeting on Nov. 28 (Mr. G. Grant in the chair), the accounts showed a debit balance of 234. 18s. 3d., and a balance of liabilities over £1000. 11s. 11d. A call of 3s. per share was made. Capt. Wm. Sandoe reported that the mine at this moment is not rich, but he fully considers that a better state will likely to appear in a very short time.

At Merlin Mine meeting, on Thursday (Mr. H. B. Jones in the chair), the accounts showed a debit balance of 234. 18s. 3d., and a balance of liabilities over £1000. 11s. 11d. A call of 1s. per share was made. Capt. Wm. Sandoe reported that the prospects of the mine are gradually improving. The frost has hindered them, but he hopes to sell 5 or 6 tons of ore next week.

At Yarner Mine meeting on Nov. 28 (Mr. G. Grant in the chair), the accounts showed a debit balance of 814. 12s. 10d. A call of 1s. per share was made.

At Hamton and Barkell reported upon the various points of operation. They have been searching for productive lode, but to develop that which they have, to make permanent returns from where they now get nothing.

At Wheal Polmear meeting, on Wednesday, the accounts for the four months ending August showed a credit balance of 911. 1s. 6d. The profit on the four months' working was 314. 12s. 7d. An important discovery has recently been made in the mine, and if present prospects continue the mine will, it is considered, enter the next stage.

At Scorrier Consols quarterly meeting, on Nov. 27 (Mr. Timothy Painter, in the chair), the accounts for the quarter ending October showed a debit balance of 375. 14s. 8d., to pay off which, and for the further prosecution of the mine, £1000. 11s. 11d. per share was made. Judging from the agents' report, this mine before long will assume a much better position. The close manner in which the merchants' bills were paid up, and the calls collected by the purser, gave much satisfaction at the meeting.

At the Prosper United Mines meeting, on Wednesday (Mr. T. Hill in the chair), a call of 1s. per share was made. Details in another column.

At the Great Caradon Mine meeting, yesterday, the accounts showed a debit balance of 91. 2s. 11d. A call of 2s. per share was made.

At Worvas Downs Mine meeting, on Nov. 28, the accounts for the four months ending September showed a debit balance of 461. 2s. 11d. A call of 12s. per share was made. Captain Richard Harry reported upon the various points of operation. The pitwork and machinery, including the new water-stamps, are in good working condition, and no further outlay will be required thereon. They have employed underground and at surface forty-one persons.

The Old Clarn, Ponterwyd, Llywernog, and Dolwen Mines have been consolidated, and now form the property of the Clara United Company (Limited).

At the Dun Mountain Copper Mining Company (special) meeting, on Thursday (Mr. Slanders in the chair), a resolution was unanimously passed authorising the directors to raise further capital. This step has been rendered necessary by the demand for chrome having been temporarily checked through the depressed state of the woolen and cotton manufacturing districts. A large portion of the capital was subscribed in the room.

At the Nerudda Coal and Iron Company (special) meeting, on Thursday, the resolutions passed at a previous meeting for the increase of the capital was confirmed.

LEEDS, DEC. 4.—During the past week the Mining Market has been very firm, at former prices. Wheal Prudence continues in good demand, and are likely to advance considerably. Transactions have also taken place in Hebden Moor, Bred Consols and Cornwall.—EDWARD BROOK, Mining Broker, 5, Bank-street.

LEEDS, DEC. 4.—In mining shares very little business has been transacted, and prices have manifested less firmness. Hebden Moor shares continue in request at advanced rates. At Coniston Out Moors Lead Mine upwards of 80 tons of lead ore have been raised since August last. Though the mine is not looking so well for ore at present, an improvement is expected, which it is hoped will be realised, and amply satisfy the shareholders of this successful mine.—J. GLEDHILL and Co.

COAL MARKET.—On Monday, the fresh arrivals were 39 ships. For household coal the market was very dull, but there was no disposition to press sales, and very little business was done, prices quoting the same.

Hartley's were much depressed, and sold at a reduction of 3d. per ton. Manufacturers' in short supply, and rather dearer.—On Wednesday there were 21 arrivals. The mild weather increased the heaviness of the market for house coal, and a reduction of 6d. per ton was submitted to. Hartley's a shade dearer; manufacturers' without alteration. Best coals, 18s. to 18s. 6d.; seconds, 16s. to 17s.; Hartley's, 14s. 6d. to 15s. 3d.; manufacturers' 14s. to 16s. per ton.—On Friday there were 6 arrivals. The tone of the market for house coal was again dull, at last prices. Hartley's improved 6d. per ton; manufacturers' steady at previous value. Hetton's Wallsend, 18s. 6d.; South Hetton Wallsend, 18s. 6d.; Stewart's Wallsend, 18s.; Braddyll's Hetton Wallsend, 17s. 3d.; Gosforth Wallsend, 16s.; Riddell's Wallsend, 16s.; West Hartley, 16s. 6d. per ton: 9 cargoes unsold; 55 ships at sea.

The importation of coal into London by sea in the month of November was 984 ships, containing 323,889 tons, being an increase on the corresponding month in 1861 of 1458 tons. The importation of coals into London by railways and canals in the month of November was 152,621 tons, being an increase on the corresponding month in 1861 of 11,539 tons.

LIVERPOOL COAL TRADE.—From the Coal Circular of Messrs. Platt we learn that the quantity of Cannel, coal, coke, and patent fuel shipped at Liverpool in November was 57,230 tons, and in the corresponding month of last year 47,462 tons, showing an increase last month of 9768 tons. The total shipments from January to November were 580,452 tons; same period of last year, 600,465 tons—decrease this year, 20,013 tons. The exports coastwise during Nov. were 8499 tons; same month last year, 9754 tons—decrease last month, 1255 tons. Total coastwise from Jan. to Nov., 1862, 77,705 tons; same period 1861, 88,256 tons—decrease, 1862, 5551 tons.

BRISTOL COAL TRADE.—During November 1544 tons of coal were exported oversea from the port of Bristol, as against 504 tons (showing an increase of 1040 tons) in the preceding month. The following are the places to which the shipments were made:—St. Michael's, 81 tons; New York, 115 tons; Smyrna, 36 tons; Jamaica, 6 tons; Demerara, 306 tons; Trinidad, 150 tons; and Cape Verd Islands, 850 tons—total, 1544 tons.

In Nov., 1861, the exports of coal from Bristol amounted to 1901 tons, so that the shipments last month show a decrease of 357 tons compared with that period. The total shipments this year from this port up to the present time amount to 11,704 tons.

PIT ACCIDENTS.—The mortality from accidents in coal mines may be taken as follows:—In Prussia, 1.89 per 1000 persons per annum; Belgium, 2.8; England, 4.5; Staffordshire, 7.3.

GOLD IN WALES.

There is now before the public, as will be seen in another column, one of the various Welsh gold companies to which reference was made some short time since; and within the past few days another undertaking has succeeded in obtaining from private sources the necessary capital for the development of a property in the immediate neighbourhood of the Vigra and Clogau Mine.

DOLFREYNOG.—The directors have just completed the purchase of a property known as the Hafodowner, which contains a large sulphur lode, that has yielded considerable quantities of gold.

EAST CLOGAU.—Operations are now being prosecuted upon the three levels, which are reported to be upwards of 64 fms. long. Special attention is being directed to St. James's lode, which is 9 ft. wide, and is said to present unusually favourable indications. The two levels upon the St. David's lode are progressing satisfactorily. The machinery and furnaces are on the eve of erection.

ST. DAVID'S.—The great champion lode opens up well; it has increased in size, being now about 10 ft. wide, and producing large quantities of quartz. The directors are present in negotiation with a gentleman who has had a lengthened experience in connection with some of the most prosperous gold mines in Australia, and should his services be secured, there is no doubt the company's property will be efficiently developed.

SOVEREIGN.—It is understood that a special meeting of the directors is called, to determine on the allotment of shares, and to assent to the introduction on the board of two gentlemen of high commercial position, who have each taken important interests in the company. The board it is said has delayed the allotment, pending negotiations with the vendor of the property, and it is stated that fresh arrangements, as regards conditions of purchase, have

THE EAST CAMBRIAN GOLD MINING COMPANY

(LIMITED),
MERIONETHSHIRE, NORTH WALES.Incorporated under the Companies Act, 1862, with liability expressly limited to the amount of the shares subscribed for.
Capital, £50,000, in 50,000 shares of £1 each.Deposit, 5s. per share on application, and 5s. on allotment.
If the company has not sufficient capital subscribed to proceed to allotment, all deposits will be returned in full.

EVERYTHING.

CHAIRMAN.—Lieut.-Gen. Sir F. M. SMITH, M.P., K.H., F.R.S., 30, Hyde-park-square, (Chairman of the Naval and Military Assurance Association).

J. HOPGOOD, Esq., 15, George-street, Hanover-square, W., and New House, St. Albans' Herts (Chairman of the Llanwit Fawr Colliery Company).

F. LASCELLES, Esq., Neigherry House, Hampstead (Chairman of East Indian Free-hold Land Association).

Lieut.-Col. MONEY, 9, Berkeley-street, Berkeley-square (Director of Canadian Native Oil Company).

MILES CHARLES SETON, Esq., Randolph House, Maida-hill, and Wheal Seton, Cornwall.

CORNELIUS WALFORD, Esq., 8, Cannon-street, and Little Park, Enfield.

Lieut.-Col. WRAGGE, Fairfield House, Old Charlton.

BANKERS—London and County Bank, Lombard-street.

BROKERS—Sir Robert W. Cardean and Son, 2, Royal Exchange-buildings.

SOLICITOR—A. Pulbrook, Esq., 61, Basildon-street.

AUDITOR—James Holah, Esq., public accountant, 7, Lothbury.

SECRETARY—S. Taylor, Esq.

OFFICES,—27, BUCKLERSBURY.

That gold mining can be successfully carried on in North Wales is now an established fact. The Commissioners of the International Exhibition, 1862, have testified to the importance of the subject by awarding the Vigra and Clogau Company a Prize Medal "for the first successful result in Britain, chiefly due to their agent, John Parry, of the working of a gold-bearing vein."

The exceeding richness of the Welsh gold fields is seen by the returns of the Vigra and Clogau Company up to the 30th September last, which prove that that company, at the comparatively trifling cost of £3000, obtained 7892 ozs. of gold, which realised at the Bank of England nearly £30,000.

Capt. Treloar, of the St. John del Bay Mining Company, speaking of the Welsh gold fields, and especially of the Cambrian, states—"The future of North Wales is in the womb of time; but, be the result what it may, at present there is a gold field near Dolwyd, of high promise, one which merits the attention of the miner and capitalist."

The gold field forcibly reminded me of a portion of the gold mining field in Brazil. * * * I feel constrained to say that the Dolgellay gold field is a locality of very high promise."

The object of this company is to secure and work the promising gold mine, situated at Moel Yspri, in the Hafod-y-Morfa Mountain, three miles north-west of Dolgellay. The property is held by lease, of which thirteen years are unexpired, at a royalty of 1-15th, and an annual rent of £100.

The mine is traversed by several lodes of very rich silver-lead, copper, blonde, and sulphur, all containing gold. In addition to these, a monster gold lode, at places 30 ft. wide, runs through the property.

It is bounded on the south by the Prince of Wales, and on the west by the Cambrian; and several of the lodes of both these mines run through it. The ore in the Prince of Wales is as rich as in the Vigra and Clogau, and its shares, with £2 15s. paid, are now selling at £25; while the shares in the Cambrian, which company was only brought out three months since, have risen 75 per cent. in value.

T. A. Headwin, Esq., F.G.S., in a paper "On the Gold-bearing Strata of Merionethshire," read before the British Association at its last meeting at Cambridge, in describing the various auriferous districts, mentions the Moel Yspri (East Cambrian) Mine as one of the mines in which he calls the Cambrian section, and states that it "has yielded, it is said, at the rate of 8 ozs. of gold to the ton of galena," and that "there is no doubt that gold quartz producing from 8 to 10 dwt.s. will pay large dividends."

The directors have instituted the most stringent enquiries into the merits of the undertaking. They first appointed a deputation to visit the mine, which selected its own engineer, S. Beardmore, Esq., whose report will be found below. After a thorough investigation, the deputation expressed entire confidence in the prospects of the concern. Samples of the ore from three of the lodes were taken by them, and sent for assay to Dr. Percy, of the School of Mines, and Messrs. Griffiths and Barton, assayers to the Bank of England, who returned the following results:

Imperial lode, 1 oz. 5 dwt.s. 22 grs. of gold per ton of ore. (Messrs. Griffiths and Barton).

Champion lode (which at surface produced 4 dwt.s. per ton), taken 3 ft. from the surface, 7 dwt.s. 8 grs. of gold per ton. (Messrs. Griffiths and Barton).

Sulphur lode at surface, 5 dwt.s. 7 grs. of gold per ton. (Dr. Percy).

Numerous other assays have been made, and all have produced appreciable results, every lode having been proved to contain gold.

It has been found in the case of the St. John del Rey Mining Company that a produce of three-quarters of an ounce per ton resulted in a profit of £100,000 in a year; and the Port Phillip Mining Company, with a produce of only 10 dwt.s., pays large dividends.

The directors wish to make it known that they have not permitted assays to be made from selected rich specimens, which they might have done, but have preferred to adduce samples of ore broken from promiscuously from the different lodes by the deputation. The assays show that this company possesses a good average quality of auriferous quartz that will prove remunerative on being worked, and which may reasonably be expected to increase in richness as the mine is opened out, especially when it is mentioned that the adjoining mine, the Prince of Wales, is obtaining some of the richest ore at the depth of 50 fms., from a lode almost touching the East Cambrian boundary.

Provisional arrangements have been made for the purchase of this property, including the existing materials on the mine, for the sum of £15,000, of which £5000 is to be paid in cash, and £10,000 in shares, which are not to be handed over to the vendors until six months after allotment.

The vendors are so satisfied with the prospects of the company that they have left the arrangements for payment to the absolute discretion of the directors.

The original reports and assays, and specimens from the several lodes, also very rich specimens (containing from 500 ozs. of gold per ton) from the adjoining mines, can be seen at the offices of the company; and every information will be supplied on application to the directors, brokers, solicitor, or secretary, of whom prospectuses and forms of application for shares may be had.

REPORTS.

Manchester-buildings, Westminster, Oct. 27, 1862.—In accordance with the instructions given to me, I have examined the property of the East Cambrian Mining Company, in the neighbourhood of Dolgellay. My attention was directed to the following points:

1. To ascertain the exact position and extent of the property.—2. The course of the lodes which pass through it.—3. The general character of these lodes. On the first point, I beg to report that the property is situated in the parish of Llanelli, about three miles from Dolgellay, and is bounded on the south by the Prince of Wales, on the east by the Sovereign, and on the west by the Cambrian Gold Mines; the contents are about 107 acres.

On the second point, I beg to submit a plan, on which you will observe the position of the lodes approximately laid down. They run nearly east and west, with a cauter tool running north and south. One of these, and the most important of them, would appear to pass right through the Cambrian set, and also Garthgeit, the important property belonging to Messrs. Cobden and Bright. Referring now to the ascertained character of these lodes, I may observe that the assays submitted herewith are specimens taken by me at random from different parts, and that they were delivered into the hands of the several assayers direct from the lode. I estimate the cost of putting the machinery, &c., on the ground, together with the cost of opening out the champion lode by means of an adit level, at £8000, and when this is done you will have at command a quantity of ore which is practically inexhaustible. It may be observed that the Vigra and Clogau Gold Mine has, from the very richness of its ore, been able to obtain large returns by means of machinery and apparatus which would not be considered adequate to the reduction of such ores as those operated on by the St. John del Rey and Port Phillip Companies, and there is, therefore, a large margin for ores of a sample such as that of the East Cambrian Gold Mine, from which, by the use of a more efficient method, returns equal to that of the Clogau can be secured.

SEPTIMUS BEARDMORE, M.E.

Kensington, Nov. 14, 1862.—I have always considered the mines in Moel Yspri as being placed in lodes that will return large profits to adventurers in gold, silver, and lead. The lodes are bold in appearance, and in the Lower Silurian formation, with here and there in the range of these mines protrusions of greenstone, also felspathic-schist, so prolific in utility during the deposition of metals. There are five very distinct lodes within the indicated boundaries; at several points attempts have been made by parties who have employed their energies in opening works near the surface, instead of opening a deep adit to cut the known lodes, and several others that I believe to exist; the results of these futile attempts, have, however, given me an opportunity to register the contents of the lodes, and I give those underas the results of several assays made personally during my residence in that country in 1846 and 1846:—

Lead per cent. Gold per ton. Silver per ton.

Moel Yspri ore, washed by hand in a bowl 73 ... ozs. 0 10 0 ... ovs. 31 12 5

Moel Yspri ore, extracted by Mr. Taylor 56 ... ozs. 1 0 0 ... ovs. 32 0

Samples of stones broken from lodes in the hills between Llanelli and Moel Yspri Farm:—

Concentrated ore, No. 1 36 ... ozs. 1 3 0 ... ovs. 21 0 0

Ditto, No. 2 63 ... ozs. 0 12 0 ... ovs. 36 15 0

Ditto, No. 3 42 ... ozs. 0 15 9 ... ovs. 25 0 0

Ditto, No. 4 70 ... ozs. 1 12 3 ... ovs. 39 10 9

Ditto, No. 5 22 ... ozs. 0 15 4 ... ovs. 28 0 3

Ditto, A 33 ... ozs. 0 19 9 ... ovs. 40 9 0

Ditto, B 25 ... ozs. 0 18 3 ... ovs. 39 2 4

Samples from lode on Moel Yspri Farm:—

Concentrated, A 29 1/4 ... ozs. 0 0 0 ... ovs. 13 9 0

Ditto, B 36 ... ozs. 0 15 2 ... ovs. 26 0 0

I adhere to the opinion I formed in 1846 of this mining sett, that if capital is brought to bear upon it in sufficient quantity, and put under judicious management, very profitable results can be obtained, and that it will yield the palm to none in the county in produce of gold, silver, and lead. Some of the lodes may turn out to return gold alone as their produce; in such case I consider there is every chance of another St. David's gold lode deposit, and if boldness of hills and geological accompaniments go for anything in mining, such are not wanting in this district, as certain indications of metallic worth. Parties entering this field of mining must begin with a fixed determination to reach 50 fms. of depth before abandoning hope of success. On all my recent visits I have seen no reason for changing my opinions in 1846 and 1846, but confirmation in every way satisfactory.

JOHN H. CLEMENT, F.G.S., F.C.S., &c.

Oct. 30, 1862.—In handing you a report of this valuable and interesting mining property, I will firstly draw your attention to the locality; secondly, to the assays—the results given by such assays must certainly be very encouraging, clearly demonstrating the value of the property. The mine is bounded south by the Prince of Wales Gold Mine, west by the Cambrian Gold Mine, and east by the Sovereign Gold Mine. It is within a short distance of the celebrated Clogau Gold Mine, and in the centre of the proved district, and is only half a mile from the shipping port. Having stated the true position of the mine, as a general rule the value of the property must be taken by the results of assays as per sample from the different lodes contained therein. In 1846 I opened some few pits on the back of the lodes in search of silver-lead, from which I extracted specimens of rich quality. Having at that time in hand the (now) Prince of Wales, the Clogau, and the Vigra, the Prince of Wales and East Cambrian were abandoned, our forces being concentrated on the development of the Clogau and Vigra, which, after working a year or two for copper, were also abandoned. At the East Cambrian five lodes are known to exist, each presenting indications to warrant development on a large scale. By driving a deep adit under the main lode the five lodes would be intersected at a great depth. Taking into consideration the facility for working this extensive sett, the satisfactory results of the various assays, and the aspect of the samples from the lowest levels, I am safe in saying that in the East Cambrian you have a valuable property. There has been

so much said about the chances of success in favour of gold mining in Wales that it only remains for me to endorse the opinions and views of such able writers, believing your property equally as valuable as the ones in operation. THOMAS FAULL.

Late Manager of the Almaden Mines, California.

Vigra and Clogau Mine, Dolgellay, June 18, 1846.—According to your request, I have inspected the above mine, and beg to hand you my report. It is situated in the parish of Llanelli, county of Merioneth, north of the Prince of Wales Mine, and about 800 yards distant from the shipping place of Maesgarmon. There are in this sett several lodes, the backs of which are to be seen in pits at surface. There is a lode which deserves especial notice, as it is a most magnificent one; it runs east and west for a long distance. I followed it towards the east for 300 or 400 yards to the old workings, where the lode looks very promising, and is composed of silver-lead ore and blends of a very rich character. At the western part of the property is a sulphur lode, spotted with copper, about 12 feet wide, and from appearance will give copper in depth. I recommend an adit level, the ground being favourable for that purpose, (say) 120 or 130 fms. below the old workings, and continue it for 100 fms., where I believe you will find the different lodes very productive for ore, and henceforward the mine worked at a good profit.

JOHN PARRY.

ASSAYS MADE AND PUBLISHED IN 1855.

Samples of Hafod-y-Morfa lead ore:—

per ton.

Produced 69 1/2 per cent. of lead, and contains of fine gold ozs. 8 3 8

And of silver 11 8 16

ROBERT W. BYERS.

The above was a sample of ore from the lowest level, and dressed for market by Hugh Hughes.

Sample from Hafod-y-Morfa.

Mixed gossan gave, I estimate, more than 1 oz. of gold. Gold per ton. Silver per ton.

per ton of ore, and some silver ozs.

Lead and matrix pounded give 1 12 6 9 16 10

Dressed lead, giving 64 1/2 per cent. of lead 2 5 17 19 15 7

Lead and blonde yield 2 2 11 9 6 5

ROBERT W. BYERS.

ASSAYS MADE SINCE THE DEPUTATION VISITED THE MINE.

I hereby certify that I have examined two samples of quartz, and that they contain as under:—

Gold per ton.

Marked Joe's Shaft, East Cambrian Mine ozs. 1 8 7

Marked C (champion lode, at the depth of 6 ft.) 0 7 15

Nov. 10, 1862. JOHN LONGMAID.

THE EAST CAMBRIAN GOLD MINING COMPANY (LIMITED).

Incorporated under the Companies Act, 1862, with Limited Liability.

Offices—27, Bucklersbury, London.

FORM OF APPLICATION FOR SHARES.

To the Directors of the East Cambrian Gold Mining Company (Limited).

GENTLEMEN.—Having paid into your account with the London and County Bank the sum of pounds shillings, being a deposit of 5s. per share for shares to the amount of their shares.

Capital, £100,000, in 10,000 shares of £10 each.

Calls not to exceed £2 10s. per share, and at intervals of not less than three months;

5 per cent. interest will be allowed on payments in anticipation of calls.

7500 A shares, which will be entitled to a preferential dividend of 7 1/2 per cent.

2500 B shares, to be issued as fully paid up.

Issue of A, or preference, shares only.

Deposit £1 per share on application, and £1 10s. on allotment.

DIRECTORS.

AURELIUS JOHN DREWES, Esq., Bowde, Wiltshire.

J. V. F. FOSTER, Esq., Upper Norwood.

F. W. GREEN, Esq., Change-alley, London, and Bristol.

RICHARD LAWRENCE, Esq., M.D., Connaught-square, Hyde-park.

THOMAS S. OWEN, Esq., West-green, Tottenham.

T. EARLY SMITH, Esq. (First of Early and Smith), London.

WILLIAM TABOR, Esq. (First of Tabor and Trego), Director of the Imperial Bank.

STOVIN WING, Esq., 52, Park-street, Grosvenor-square.

BANKERS—The Imperial Bank, 6, Lothbury.

SOLICITORS—Messrs. Ashurst, Son, and Morris, 6, Old Jewry, London.

AUDITORS.

James Goodson, Esq., 32, Kensington-garden-square, W.

H. Whitworth, Esq. (Messrs. Whitworth and Co., Public Accountants), London and Manchester.

BROKERS—Messrs. Wise

NOTICES TO CORRESPONDENTS.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly sent on receipt: it then forms an accumulating useful work of reference.

* On my estate, in Northumberland, I have just discovered a large quantity of red paste, which soon becomes hard, about 5 ft. from the surface, and in this paste a clay-hand, and below the hand more red paste, to a considerable depth, but how deep we cannot tell, from the water. This paste, I am informed, is almost pure iron, and the hand also contains fine iron. The same was found near the bottom of the hill, and all the land below, for several hundred acres, presents, on the surface, the same appearance as this did on the surface—a yellow-brown "sludge," which, when dried, contains 12 per cent. of iron. There is a great quantity of limestone on the hill, and a working miner informs me that this appearance of the iron indicated lead in close proximity under the limestone. Can any reader, through the Journal, give me information on the point?—A SUBSCRIBER: Dec. 3.

Mr. KIRKWOOD, supposed to be in Scotland, who was about two years ago engaged on the San Paulo Railway, in the Brazils, is requested to send his present address to the MINING JOURNAL OFFICE, 26, Fleet-street, London, E.C.

LADY ELIZA (Llandover).—Can any reader give information respecting this mine? I have been a shareholder some years, have paid my calls promptly, and have always understood that the mine was progressing favourably. For a long time past, however, I have not been troubled with calls, and, seeing that the mine has ceased appearing in the Share List, I conclude that is either defunct or being worked to a profit as a private company.—T.Y.R.

MINTON IRON ORE COMPANY.—I fear that "One who has Enquired, and Feels Satisfied," in the Journal of Nov. 18, had more questions put to him in the Journal of the following week, by "One who has Examined, and Feels Dissatisfied," than he could easily answer. I think the caution given by "B." relative to Lady Bertha, in last week's Journal, is quite as applicable to the Mwyndy Iron Mines, cito why are things kept in the dark? It is a great pity that your correspondent in last week's Journal is not willing to have his name published in the report on this property, as it would give satisfaction to the proprietor.—ANOTHER DISSATISFIED SHAREHOLDER.

MINTON IRON ORE COMPANY.—"A Shareholder" should address a letter to the directors: we consider they should make some communication to the proprietary, to allay the uneasy feeling which evidently exists as to the value of the property.

MINTON IRON ORE COMPANY.—"J. O."—We do not possess a list of the shareholders, and therefore cannot forward the information to our correspondent.

IRON-SPAR.—I frequently notice in your mine reports that the lodes are described as containing fluor-spar, amongst other things not being metal, and should be glad if any of your readers could state whether any use is made of it? If not, I should like to know at what price per ton pure, or nearly pure, fluor-spar could be supplied at the mine? Could I learn the percentage of fluorine contained so much the better?—B. H.

EAST CARADON.—It appears to me that, were Capt. Seccombe to send a periodical report (bearing his signature) of East Caradon to the Journal, it would very materially tend to quietify much of the unfavourable rumour that is circulated by others as to that mine's prospects. I consider that had this been done during the past month, the panic, causing so heavy a fall in the value of the shares, would have been frustrated; and I think the management and he (who are supposed to have the interests of the shareholders at heart), are much to blame for not having, when first such adverse reports were circulated, adopted this plan—one that is adopted by the agents of other mines, thereby enabling those away from the locality to be informed officially, and judge for themselves whether it is prudent to hold on their shares or sell.—J. B. BRENCHLEY: 78, Old Broad-street, Dec. 4.

GRANT WELSH CONSOLIDATED GOLD MINING COMPANY.—This company is not yet matured; when its arrangements are completed, all particulars will appear in the Journal.

WALHAM AND POLDICE MINING COMPANY.—I am directed to acquaint you that the share list of this company is closed. The directors consider that in addressing you it will be the best mode of giving notice to the public of this fact, having lately received numerous applications for shares, which they are unable, for the above reason, to allot.—A. E. WILLIAMS, Secretary.

SIR.—Can any reader afford me information as to the Cumberland Black Lead, afterwards the Borodale Mining Company?—R.

GLENLLONY LEAD MINE.—Can any reader inform me whether the above projected mine, of which a prospectus has lately been issued, is the same as was mentioned in a prospectus circulated privately not long ago, in which it was called "The Glyn Lead Mine"? Several of the particulars given in the two documents as to locality, former operations, runs of ore, &c., certainly tend to confirm the rumour that they refer to the self-same project, and it would, therefore, be as well that the public should know something more than the prospectus last issued reveals with respect to "the proprietors," who are to receive 3800/- out of the capital in cash, with 1000/- worth of shares, before investing in the concern. It is stated in the first prospectus that 380/- only were required for the purchase of the mine, 100/- of which, however, it is added, "need not be paid until the expiration of 12 months, the remainder being applied to extending the levels," &c. Now, if the mine was bought from the original owners for the sum in question, it does seem that a profit of 3620/- is rather too much for the new proprietors, unless, indeed, some good reason can be given for it, which does not appear on the face of the new prospectus. I make no insinuations; my object is to obtain information, and if it be shown that the project is a *bonsaï*, honest one, I shall be glad to aid it.—INQUIRER.

Mining Companies' LAW—TRANSFER OF SHARES.—"F. C." (Gateshead).—Transfers of mining shares require a 6d. inland revenue stamp, whether the company be constituted on the Limited Liability Principle or on the Cost-book System. An unstamped transfer would be worthless in a court of law.

WHEAL BASSET AND GRYLLS.—In the Journal of Nov. 22, in the report of this mine, it is stated that the tin sold on Nov. 15 realised 1061/- 5s. 6d.; it should be 1604/- 5s. 9d.—J. B. WILKINSON.

The curious specimen of tin alluded to in Mr. Henwood's Photograph, "Old Men and their Works," was in the possession of the late Mr. W. Heath, Sticklepath, who valued it exceedingly. He was a well-known, acute, and experienced miner, having been for many years at the Morro Velho, St. John del Rey Mines, as well as many mines at home. He always declared his intention of giving it to some public institution, as a rare and most extraordinary specimen; it is, however, believed to have been given to the late Mr. Joseph Carne, of Penzance, who was a liberal patron and kind friend of Captain Heath, to be placed in his own splendid collection, or to be deposited in the Museum of the Royal Cornwall Geological Society, at Penzance.

WHEAL CONDUOR.—Our chances of success were never so great as at the present. My brother adventurers will do well to send a practical agent to inspect the mine before parting with their shares.—A SHAREHOLDER.

WHEAL NEPTUNE.—"A Cautious Man" must be blessed with an amazing amount of egotism to ask the questions he does about Old Wheal Neptune; but I wish him to understand that his *mesmeric* influence does not extend to me, and I boldly tell him his conduct is both impertinent and obtrusive; and I plainly see it is only done to bring himself into notoriety. From his last letter, I take it he intends to intimate, but only in a quibbling, special pleading manner, that he did not refer to Old Wheal Neptune. If he did not, then to what mine did he refer? I will repeat two questions he leaves unanswered in my former letter:—Why did he not, when the company was first launched, make enquiries—not put them when it has been in existence many months? Can he produce a single person who made an enquiry but what it was answered, or who can say that augst was hid, or attempted to be hid, from him? His question, No. 1 is distinctly mentioned both in the body of the prospectus and in the late agent's report on the mine. No. 2 was distinctly mentioned in the majority of the advertisements, certainly those that came under my own eye. No. 3: I have seen the list of directors, which can be seen by any one at the company's office, and a more respectable body of gentlemen cannot be found; but I certainly shall not parade their names before the public to oblige even such a great authority as the "Cautious Man" thinks himself. No. 3 can also be answered satisfactorily on enquiry at the office by anyone interested.—OVER CAUTIOUS.

WHEAL SILVER BANK—ABERNANT—GREAT DARREN.—We cannot publish the letter of a "Subscriber" without the writer's name being attached.

EAST CARADON.—May I be allowed to correct your correspondent, Mr. E. Cooke, in his remarks in last week's Journal? He must have been labouring under a great mistake when he says—"215,000/- does seem a very high price for a property paying such small dividends." I can only correct him and the public by comparison with other mines. South Cardon is selling for 204,800/-, and paying 15,360/- yearly in dividends. East Cardon is selling for 215,000/-, and paying after the rate of 24,576/- in dividends. West Seton is selling at 120,000/-, and paying 12,000/- yearly in dividends. The Devon Consols is selling at 512,000/-, and paying 61,440/- yearly in dividends, at 10/- per share, whereas only 7/- has been paid for a considerable period until the last. West Cardon is selling at 33,000/-, and paying 30,72/- yearly in dividends. It will be seen, therefore, that East Cardon is selling at a considerably lower price than the rest of the foregoing mines, in proportion to the amount of dividends they respectively pay every year, and it is most extraordinary that Mr. Cooke should have overlooked the fact that East Cardon is paying 9216/- more in dividends yearly than South Cardon, while each mine is selling for about the same sum. If East Cardon stood on the market at 300,000/-, or 50/- per share, it would then be the relative value with South Cardon, according to the dividends paid. I do not wish to make any unfair comparisons, but merely to correct Mr. Cooke and the public generally on a point so important.—VERA.

WHEAL GAS.—"An Old Subscriber" will call at the General Gas Apparatus Depôt, 218, Great Portland-street, London, W., I shall be happy to show him an apparatus in accordance with such as he may require.—JAS. CURTIS, Manager.

ATMOSPHERIC GAS.—"G. F. (Polegate).—The apparatus by which the atmospheric gas generated in the Journal of Nov. 23 is produced is extremely simple, and has been invented by Mr. Mongrass in this country. It is simply a gas carburetor, employed to saturate atmospheric air (which may be forced through it by any means, provided a regular supply be kept up) with an inflammable vapour, and we presume the same vapour would cause either benzine, naphtha, or any similar liquid were used. The apparatus consists of two chambers, the upper containing the principal body of liquid, and the lower a small quantity to saturate the air with. The liquid in the lower chamber is kept at a uniform height by a tube and valve, or other means. The lower chamber is completely filled with wicks, which are kept saturated by capillary attraction; the air passes through these wicks, and not through the liquid, and picks up some of the inflammable vapour as to become capable of ignition. As to the patentability of the invention, we cannot pronounce an opinion; "G. F." had better consult a patent agent, or make a search for himself. We are equally unable to state whether it is probable that the apparatus would soon become choked by the thickening of the volatile portion of the fluid, as we do not know what the fluid is. We are not aware that the cost of the carburetor has been stated, but we should think not more than a few shillings. The inventor is the only party who could answer such an enquiry, as those of "G. F." altogether satisfactorily. A space about 4 ft. by 2 ft. would, we should think, be sufficient for the entire apparatus for a moderate size, but that would depend upon many circumstances.

With last week's Journal we published a SUPPLEMENTAL SHEET, which contains a paper by Mr. JAMES NAXSMITH, on the "Pillar and Stall," "Double Stall," and "Long Wall" Systems of Working Coal, practically considered, with illustrations; also, the paper, by Mr. Jos. Goodwin, of the Hyde and Haughton Collieries, on the "Long Wall" and "Pillar and Stall" Systems of Working Coal, read at the Manchester Geological Society, on Nov. 25. The report from Cornwall and Devonshire; Foreign Mining and Metallurgy; Rotatory Engines;

Flexible Valves; also, the meetings of the Brynambor, North Minera, East Kongsberg Native Silver Mining Company of Norway; and Central American Mining Companies.

* * In a SUPPLEMENT to the Journal of Nov. 15 we gave full details of the Tregurtha Downs and Owen Vean Mining Company, with plans; also plans and particulars of the North Pool Mining District; the International Exhibition; Minerals in Spain; Minerals in Newfoundland; Brick Making Machinery; Slow Combustion Boiler; Mon Moor Iron; Returns of Lead and Tin, &c.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, DECEMBER 6, 1862.

The returns from the Board of Trade, with respect to the exports of the United Kingdom, for the ten months ending Oct. 31, do not present any feature of special interest. There is again a decrease, as compared with last year, of 1,960,973/- on general balance, the difference between an aggregate of 103,519,269/- in 1862, and 105,480,242/- in 1861. The enumerated articles amount to 97,199,612/-, and unenumerated to 6,319,657/-, against 96,621,916/- of the former, and 6,858,326/- of the latter, in last year.

Mining, and its results, again gives an exception, by showing a very marked increase in opposition to the general decrease. The excess of exports of articles identified with this branch of British industry, in their crude or manufactured state, is 1,944,221/-, after allowing for a falling off, in machinery, to the extent of 224,455/-, and of 5461/- in zinc, being together 229,916/- The total for the ten months of this year is 24,066,199/-, against 22,121,977/- in 1861. The greatest improvement is in machinery, which is 459,968/- over last year; iron is 391,757/-; copper, 387,678/-; tin-plates, 326,209/-; lead, 298,397/-; tin unwrought, 115,867/-; steel, 91,525/-; coal, 70,291/-; and brass, 32,445/- in excess of last year.

The balance of trade in the precious metals, during the same period of this year, is in favour of this country, the imports being declared at the value of 24,781,076/-, and the exports at 21,990,484/-, being, consequently, a difference of 2,790,592/- The imports consisted of 16,164,465/- in gold, and 8,616,611/- in silver, while the exports were 12,208,069/- in gold, and 9,782,415/- in silver. Our largest amount of exports of bullion and specie was 8,860,969/- to Egypt, in transit to India and China, against which we received only 5914/-; to France we sent 4,701,506/-, but received 1,247,751/- to Russia, 1,855,401/-, against 764,554/-; to Turkey, 1,932,645/-, against 2935/-; to Spain, 1,158,515/-, against 22,330/-; to Portugal, 852,629/-, against 84,263/-; to Holland, 317,427/-, against 163,671/-; to Brazil, 255,618/-; to British North America, 241,212/-, against 62,083/-, and to Gibraltar, 105,470/-, against 22,088/- On the other hand, we received from Mexico and South America 6,396,709/-, against 1,155,274/- sent from this country; from the United States, 8,112,806/-, against only 36,754/-; from the Hanse Towns, 1,494,301/-, against 214,602/-; from Belgium, 691,704/-, against 239,325/-; from Malta, 12,101/-, against 389/-; and from the West Coast of Africa, 92,549/-, against 28,695/-; from Australia we imported 5,202,086/-, without any export of the same nature; while from South Africa we had 12,032/-, and 11,088/- from British Columbia, on similar terms. "Other countries" sent us 88,921/-, against 34,053/- exported from our shores.

The rapid rate of exhaustion of our coal fields, and the dawning certainty that if every ounce of coal contained in the prolific deposits of the United Kingdom were properly utilised we should then have insufficient to reduce our immense treasury of metallic ores to pure metal, to say nothing of the supply of those other requirements and purposes to which we apply coal at the present time, and for which it will, without doubt, be used much more extensively in times to come, make us turn our earnest attention to every source that offers a prospect of supplying us in future with this most valuable commodity. So precious will coal be considered in a few years hence that many veins or seams that are now neglected, and thought scarcely worthy of notice, will become objects of interest, and additional sources from which a failing supply will be endeavoured to be kept up.

The more perfect the knowledge we possess of our actual wealth in this article, the greater will be the economy we shall evince in the working and application of it. It is, then, profitable for all who are interested in this particular branch of commerce to obtain the fullest information respecting the different coal districts of this country, and also to seriously consider the means by which each peculiar deposit may be worked best. It is a notorious fact that many seams of coal are worked by niggardly proprietors, that ought to be left until a time when, coal being more valuable, it would be possible to produce a much larger yield from a given area, for it is undeniable that very large tracts are now frequently passed over in the event of the vein becoming a trifle thinner than in those parts where it is possible of being worked at a mere nominal profit. In the same manner also are large quantities of coal abandoned (and which for future purposes are entirely lost) that are a little softer than the ordinary character of the seam, in consequence of their turning out a greater proportion of slack. Immense quantities of small coal, too, are annually buried in the bowels of the earth that might be usefully and profitably employed, either in the manufacture of coke or compressed into blocks of patent fuel. The small coal in many parts of England is thus wasted through the misconception of the proprietors as regards its value, and in no district is the slack so much disregarded by the miner as it is in the Forest of Dean, although well qualified for making coke or patent fuel. This remark, however, is entirely confined to the large works of the Middle, or Parkend series, as the works on the Coleford Highdelf series are at present of so unimportant a character, being confined to the outcrops, that very little besides small coal is obtained from them; and, as a consequence, in such circumstances it is utilised. The proprietors of collieries in the Parkend series do not pay their men for any slack that may be made, and, no doubt, this is done in order that it may induce the colliers to take greater care in the cutting, thus obviating the destruction of much large coal.

We think, however, if it were the practice to pay a nominal sum per ton on all coal sent out of the pits as slack, the result would be a large saving of fuel. It would still be to the interest of the men to obtain as much large coal as possible, inasmuch as a higher price would be paid for it. There is always an unavoidable amount of slack made in holing and cutting, and, as there is less trouble in goading or gobing this than in loading into the pit carts, the miners generally adopt this plan, and at least 15 per cent. of the actual contents of a vein is thus lost. The coals obtained from the Parkend series are hard, and do not make much small after they are delivered at the pit's mouth. The engines, &c., use a good proportion of this, and the coalmaster supposes the surplus to be unworthy of notice. This, however, is a fallacy, for if this surplus were added to the waste underground at least 20 per cent. of the produce of the colliery might be converted to profitable purposes. Having completed our remarks upon the great waste that is going on in the Forest of Dean, both as regards the working of thin veins and the treatment of the small coal, we now proceed to give a description of the different series, and the veins which each comprise.

The highest of these series is called Woorgreens, and consists of three veins; they are, however, unimportant, and the workings in them have for some time been abandoned. Their extent is very limited; indeed, the diameter of the basin of this series does not exceed two miles. The depth from the surface to the lowest of these veins is about 45 yards, in the centre of the basin; and, as the veins occur so near together, great difficulty will be encountered in obtaining anything like a large proportion of their contents. The coals are of a hard nature, and break with square fractures. They are found to contain a considerable amount of sulphur, consequently their chief use would consist in the burning of bricks. Argillaceous nodules of ironstone are found in association with these veins, but not to such an extent (at least, so far as present experience goes) as to offer much inducement to the miner.

The entire quantity of coal contained in the Woorgreens may be estimated at 3,760,000 tons. The roofs and floors of each vein are found to produce a very valuable clay, suitable for porcelain, &c.; and it is not improbable that at some future date this, in combination with the coal and ironstone, may be worked. The most important series at present worked in the Forest is the Middle, or Parkend series. This consists of nine veins—Dog, Smith Coal, Little Delf, Parkend High Delf, Starkey, Little Coal, Rockey, Upper Churchway, and Lower Churchway, giving an average aggregate thickness of 21 feet, and supposed to contain

420,396,800 tons. Some of the veins of this series are being worked very extensively by the Parkend Coal Company, the Bilson and Crumpnadow Company, Mr. CRAWSHAY, and several others, and the workings have been highly lucrative. The depth in the centre of the basin to the Lower Churchway coal is about 300 yards. The Dog Delf and Smith coals make very excellent gas and coke,—the latter is well suited for iron smelting, and is extensively used at the Cinderford and Parkend Ironworks. They are capable, also, of producing first-rate foundry and locomotive coke. The Lowrey, or Parkend High Delf coal, has obtained a great celebrity in the West of England as a house coal, on account of the cleanliness with which it burns, its large size, and power of resisting the injurious effects of exposure to the variations of weather; it is also a very good gas and coking coal, and is used extensively in the West Indies for sugar boiling, and in many other places for steam purposes. Starkey is a very good house coal, burns clean and fiercely, and much resembles the Durham coals. It is a favourite coal with those who have been used to the Tyne or Tees coals, but in many parts of the West of England, where the more durable coals of Glamorganshire and Monmouthshire have been more generally used, and where cleanliness of burning is not considered so great an object as durability, the Starkey vein is not so thoroughly appreciated. Rockey is another very favourite coal for household purposes. It combines much of the durability of the Glamorganshire coal with a cleanliness quite equal to that of the Starkey. It may be inferred from its name that it is of a very hard nature, and such it is. It is so regularly laminated that when broken with a hammer it does not make any slack, but divides into small cubes. This coal will produce about 12,000 lbs. per ton of gas of a very brilliant character. The Upper and Lower Churchway High Delf are much of the same nature as the Smith coal, but rather harder. The lowest series is by far the largest, it consists of—Braizeley, Yard Delf, Whittington, Coleford, High Delf, and Upper and Lower Trenchard.

These veins give an aggregate thickness of 16 feet, and are calculated to contain 643,862,400 tons; thus do we see that the Forest of Dean coal basin is computed to be capable of contributing nearly 1,100,000,000 tons of coal for the use of mankind. Strikingly large as this quantity may appear to be, it would do little more than supply the present rate of demand on our coal fields for a period of 12 years, as there can be little doubt that the actual rate of exhaustion is now over 90,000,000 tons per annum. The Braizeley vein has never been worked to any extent; less, in fact, than any other of this series. The coal obtained from it is very hard, and of a suitable quality for household purposes, but the principal difficulty that the miner has to encounter here is the water which the vein contains. It exists in such quantities as to demand the employment of very powerful pumping machinery, and as the Coleford High Delf vein, the principal of this series, has never been sunk to such places as the shafts would intercept much until pits are sunk through it, with the view of winning the lower and more important veins.

GOLD EXTRACTION.—Every experienced gold washer maintains that it is a very easy matter to extract

DEC. 6, 1862.]

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general work of Bainbridge is to the lawyer. The general character and value of the property may be judged of when we state that in half a dozen pages he succeeds in giving a full and accurate idea of the nature of the transfer of the property in mines, and that with equal ability and clearness he explains the law of the transfer of the property in mines; of the forms of partnership, and consequences of mining partnerships, particularly of such as are based on the Cost-book Principle; of the working of mines; of the rights of water and property; of criminal offences connected with mines and mining property; of the rating of mines; and of the Stannaries Court. Whilst, as an appendix, there are very exciting forms for an agreement for a lease of mines; an agreement entered into with an authorising the working of a mine or mineral property for a short period; a license to work a mine; and a lease of mines; as well as a reprint of the three Acts of Parliament relating to the jurisdiction of the Stannaries Court. The work as a whole cannot fail to interest them with regard to the laws by which their operations are to be regulated.

THE POSTAL CURRENCY OF THE WORLD.—As more than twenty works, written to enlighten the present generation upon the all-important (?) question of the currency of the world, have been published within the last two years, it would be safe to require whether the collection of postage stamps is a profitable or dignified occupation for a doctor of philosophy and a Fellow of the Royal, of the Linnaean, of the Royal Society, and of some other learned societies; we will, therefore, simply state that Dr. J. E. Gray, of the British Museum, has just issued a curious little work (through Robert Hardwicke, of Piccadilly) entitled "A Hand Catalogue of Postage Stamps and the Use of Collectors." As we have never given particular attention to the science, study of ornithology, entomology, conchology, literature, fine art, and numismatics, we are unable to pronounce an opinion either as to the absolute accuracy of the catalogues or as to the relative merits, from a philosophical point of view, of the Grayian compared with the Brownian, the Portuguese, the Smithian, the Moesian, the Leiden, the Balliolian, or the Anonian classifications; but assuming that Dr. Gray's system of arranging postage stamps is as worthy of adoption as is his colleague's (Prof. Dr. Gray's first order (Great Britain), an omission of some importance. We will be found that the third species should be an allegorical representation of a country, which would prepare the way for the fourth species to include Sir George Gresham as Britannia. In conclusion, we can only commend the work to those who are interested in the subject, hoping it may "educate the mind" to the full extent which the learned anticipates.

FOREIGN MINING AND METALLURGY.

Notwithstanding the extremely low prices of all siderurgical products, it is admitted that English competition still makes itself severely felt in Belgium. It is not iron only which are imported, but casting pig, which, by reason of its extreme cheapness, is employed with advantage in mixing. A large establishment has concluded an important contract in consequence of the English pig, which will be forwarded by Rotterdam and the Meuse. The English pig of this kind is sold francs at Gand at 31. 8s., while Charleroi can with difficulty deliver corresponding pig at the same town for less than 31. 19s. 9d. Pig has been quoted at Charleroi—refining, tenderiron, 31.; hard iron, 31. to 31. 4s.; pig for fine iron, 31. 16s. Rolled iron has been quoted 67. 8s., 71. 7s., 72s., and 81. 4s., according to numbers (1 to 4); rats at 61. 4s.; ordinary plates, 91. 8s.; boiler plates, 11s.; superior plates, 11s., and plates of the first quality, 13s. There has not been much attention in the Belgian iron trade of late. Notwithstanding the proximity of French department of the Ardennes, where a considerable quantity of bars and beams is consumed in nail works, iron warehouses, and manufactory of bolts and nuts, Belgium furnishes little for such purposes. Some forges which exist in the department, and especially the important works of the house of Wendel, supply the greater part of the numerous establishments between Charleroi and Sedan. We have intimated various contracts for rails have been recently concluded by the syndicate of Belgian works, and there is nothing new to notice under that head. We may state, however, that orders for important deliveries of rolling stock required for the Northern of Railways have been obtained by the Belgian General Railway Plant Company. This company has also obtained the contract for the construction of a bridge reported on the Southern of France Railway, and another which it is proposed to establish over the Northern of Spain railway. Labour, which figures to the extent of 60 per cent. of the price of nails, being cheaper in Belgium than in England, some works in the neighbourhood of Charleroi have succeeded in obtaining contracts for deliveries required for the East Indies. In the Haute-Marne district, in France, the revival of activity, which appears habitually with the winter, is stated to be not very decided this year; but the *André de St. Dizier*, a kingdom which always takes a gloomy view of the future, admits that there are sufficient orders now on hand to keep all the ironworks of the country pretty well supplied with work for the present. Refining pig is quoted at 31. 4s., and merchants' iron (charcoal production) 91. 12s. per ton. The influence of the development of commerce begins to make itself clearly and decisively felt; and it is admitted that small siderurgical establishments, badly situated, far from coal and mineral supplies, or fitted with old-fashioned plant, can with difficulty continue to exist. On the other hand, great works, fitted up on a liberal and extensive scale, and able to produce castables and minerals easily, are in an extremely satisfactory position. These works have no reason to fear competition with each other, as they are scattered thinly over all the territory of France; they need not trouble themselves about the small siderurgical establishments, which cannot produce economically; and, masters of market, they can establish their selling prices, not after the cost of fabrication, but according to the conditions on which foreign competition presents itself. The proof of this state of affairs is found in the fact that the great Creuzot Works, overdone with the contracts of the East Indies, do not accept for the present any fresh orders; that the house of Wendel, which has four blast-furnaces at Hayange, four more at Moyeuvre, and considerable establishments at Styring, is still increasing its means of production; and that the Fourcault works, the vast establishments of which are in full activity, have been making experiments with the Bessemer process for the fabrication of steel, the managers agreeing to devote themselves to its production on a great scale. These proceedings, when indicating that French metallurgy is on the decline, seem to show on the contrary, that it is endeavouring to rise to the level of similar industries in England and America. The world is wide, the field of enterprise is constantly expanding, and there is probably scope for the intelligent efforts of all three countries.

The markets for copper have been generally heavy, and only small sales have been effected to meet the most urgent requirements of consumption, the market appearing to have deserted this metal for a time. Paris and Brussels have been calm, and prices have not exhibited any change. At Berlin, prices have been sustained, notwithstanding the slight importance of the demand. At Berlin a few small parcels have found buyers at previous quotations. Tin was remained in a feeble and inactive state at Paris; Banca has been quoted 123., 124., and 125., and English 116. In consequence of the fall in tin in England, the Dutch market has also given way, and Banca has been rather pressingly offered at Amsterdam and Rotterdam. There has been no particular change to notice at Berlin and Cologne, and the market has been very quiet. The market at Hamburg has been a little less firm; in lead at Paris; rough French has been dealt in 31. 12s., to 31. 16s., and Spanish at 22s. The demand lately noticed at Hamburg has ceased at that important centre, prices have been supported with some difficulty; 40,000 lbs. of argentiferous lead, mentioned recently as having been received, have been expected direct by the holder. Cologne has remained without change. At Berlin there have been a little less active, but nevertheless, bidders adhere firmly to late quotations. There have been scarcely any transactions worth mentioning in lead at Paris or elsewhere; still former rates are maintained, rough Silesian being held at 18s. 16s. A period of inactivity is reported at Breslau, and at Hamburg the article has again declined.

The presence of various combinations of foreign metals in zinc minerals causes inconveniences in their treatment, according to known and recognised processes, and the removal of these minerals in order to secure the reduction of zinc involves also the removal of these foreign combinations, and when the assembled metals are in a state when they mingle with each other, produce an impure mixture in the ingot, and thus the quality of the zinc rendered available for consumption. A rapid desilvering apparatus also takes place at the same time; and it was, therefore, necessary to find a means by which it would be possible to prevent zinc during the reduction operation from alloying itself with other metals. The well-known Vieille Chaise Company has discovered a process for attaining this result. With the ordinary charges of furnaces, as well as the Belgian as on the Silesian system, a certain quantity of siliceous sand is mixed, the quantity employed varying according to the proportion of the mineral to be reduced with. The silica combining with the oxides of the foreign metals prevents their reduction, and produces silicates, which remain as a dross, with little loss of zinc. This is the principal advantage which results from the new process, but, as is most on this plan with foreign metals, and condense without making any mixture. The process is a brilliant one, but it is yet to be fully realized.

THE MEANING OF "MINE."—At a recent sitting of the Walsall County Court, a labourer in the employ of Mr. Joseph Cookson, chartermaster at the Birchills Colliery, obtained a verdict for 111. against his master for the payment of wages, which having been legally paid in goods, he now demanded to be again paid in cash. At the sitting of the Court on Wednesday, an application was made to Mr. Skinner, the judge, to set aside the verdict, on the ground that the plaintiff did not come within the terms of the Act. He worked in the extraction of ironstone, not from a mine but a quarry, the stone lying near the surface. Mr. Bartlett contended that the word "mine" in the Act did not refer to the place from which the mineral was extracted, but to the mineral itself. His Honour confirmed the previous order, directing payment at the rate of 11. per month.

GIGANTIC RAILWAY BRIDGE.—Our old and respected correspondent, Mr. S. B. Rogers, of Newport, Monmouthshire, the author of "Iron Metallurgy," has just issued a circular to the iron trade, and the proprietors of the railway companies in South Wales and the South-Western portion of England, proposing a magnificent railway bridge, two miles long, across the mouth of the Severn at Black Rock passage. The bridge is to consist of 25 grand arches, with spans varying from 180 to 300 ft., exclusive of small waterway arches varying from 30 to 60 ft. spans, with an elevation in the centre of 210 ft. from low water mark. "On the piers and platforms of the bridge there will be several hundred houses, shops, exhibition rooms, sites for statues, and monuments in commemoration of the founders of the undertakings, and others who may distinguish themselves by 'merit or talent' in this affair; together with refreshment rooms, and suitable conveniences for a sort of permanent International Exhibition; with 12 or more gala nights, when the entire bridge, houses, shops, piers, arches, and platforms—will be brilliantly illuminated." Mr. Rogers considers that the bridge would probably more than double the present amount of traffic, especially on the Great Western Railway. Mr. Rogers undertakes that if due

months having been 10,152., it follows that the balance in favour of the working during ten months ending Oct. 31 was 11,499. The Prussian Phoenix Mines and Ironworks Company has declared dividends for the exercise 1861-2 of 22. 2s. per share on the A shares liberated July 1, 1861; 12. 19s. 4d. per share on the A shares liberated Oct. 1, 1861, and 8s. 4d. per share on the B shares. The Royal Netherlands Steam Navigation Company is about to contract a loan of 50,000., at 5 per cent. per annum, in obligations of 100. and 50. each. All the present plant of the company, which cost 119,876., will be hypothecated as security for the loan, together with that to be purchased by the loan itself. This company was founded at Amsterdam, on Oct. 1, 1861, with a capital of 200,000., of which 100,000. has been paid up. The undertaking possesses at present nine steamers, which earned in 1861 a net profit of 17,879., or nearly 18 per cent. upon the capital employed. Of the profits realised, 10 per cent. was attributed to a reserve fund, while 7 per cent. was divided among the shareholders.

The directors of the Labuan Coal Company have received advices from their manager, Mr. Sinclair, which contain much satisfactory information as to his progress at Labuan. The company's Singapore agents had written to China for a cargo of coolies to be sent to Labuan, so that the directors are confident a very superior class of labour will soon be furnished him. The directors have secured, at a cost of 11,000., the requisite plant for working the deep coal measures asked for by Mr. Sinclair in July last, and partly included in his estimate given in May, and have shipped it to Labuan per *Minden*, which vessel sailed on Nov. 17. They also shipped in that vessel a quantity of railway bars, having in view the construction of a tramway, so soon as the yield of coal is large enough to justify the expense, from the mines to Victoria Harbour—one of the best and safest harbours in the Eastern Archipelago—accessible at all times to vessels of any draught of water, and distant about seven miles from the mines. To assist in the transport of the coal, in the meantime, from the mines to Victoria Harbour they purchased a small paddle steamer, indented for by Mr. Seymour, and dispatched her on Sept. 14 to Labuan, furnished with 12 months' stores, to tow the coal lighters between the two places. A considerable expense has been incurred in bringing home the Europeans whose agreements had expired; the directors will engage three men to replace them. An engine fitter has also been engaged. A call of 1/ per share has been made. Dr. Percy, of the Royal School of Mines, Jersey-street, has analysed some of the Labuan coal for the Admiralty, and states that the coal burns freely, with a long smoking name, and much resembles some of the non-caking coals of South Staffordshire. It contains small lumps of translucent deep reddish brown, and highly inflammable, he considers the Labuan coal to be very valuable as a fuel for various purposes. In his report to the directors of the company Dr. Percy says that the composition of the coal is—carbon, 72.27%; hydrogen, 5.20%; oxygen and nitrogen, 14.28%; sulphur, 0.3%; ash, 1.85%; water, 6.1=100. He continues—"The coal was subjected to an analysis in the state in which I received it. I have not followed the usual practice of heating it before analysis, in order to expel the hygroscopic water, as I consider it of practical importance that the proportion of this water should always be ascertained. By the term hygroscopic water, I mean that which can be expelled at a gentle heat, without causing any decomposition in the coal itself. All coal contains water, which can thus be displaced, and the amount varies considerably in different kinds of coal. In the Labuan coal there is not more than the usual proportion of water. The Labuan coal burns with a copious bright flame. When heated in a close vessel it swells up considerably, and yields a bright, lustreous, and but slightly coherent coke. It is a non-coking coal. The proportion of sulphur is small; and, I need hardly inform you, for many applications this is a great advantage. The Labuan coal is not, as some persons might infer from its external appearance, a Cancale coal, but resembles closely in composition some free burning British coals. The Labuan coal gave 56.1 per cent. of coke, but I should observe that the results obtained in coking on the small scale do not always closely agree with those obtained on the large scale. The colour of the ash of the Labuan coal is brownish red. I have pleasure in expressing my opinion that the Labuan coal is a very valuable fuel, and is well adapted for raising steam, and various metallurgical operations in which a copious flame is required, as in reverberatory furnaces. I have no doubt that gas of good quality made from this coal. The small quantity of sulphur in the Labuan coal indicates proportionately small quantity of iron pyrites; and as it is especially this substance which causes the disintegration of coal on exposure to the weather, I have no doubt that the Labuan coal is well adapted for sea-going vessels. I may state that, by direction of the Admiralty, I recently examined a sample of Labuan coal, and found its composition to be identical with that which you have submitted to me; and I understand that this coal has been thoroughly tried in some of Her Majesty's steam vessels, and reported on favourably."

ANOTHER WONDERFUL COPPER DISCOVERY AT LAKE SUPERIOR.—A short time since we recorded the discovery of an enormous mass of copper at the Mesnard Mine; this was the largest float mass ever found on the lake. The general opinion entertained was that the mass must have come from a vein near by; everyone conceiving it to be impossible that any human agency known to exist in the past could have moved it a great distance. So strong was this opinion that whilst the chief mass was being cut up, and the smaller masses existing in the neighbourhood were being collected, a thorough exploration was begun in order to find the vein from which it came, and in a few days a mass of still larger dimensions in the vein itself was discovered about 40 feet from the float. The latest advice states that this last-discovered mass had been stripped some 5 feet in breadth, 12 feet in length, and 3 feet in thickness, and that there is no indication of growing less at any point. The vein has been known for years, and runs through the Quincy, Pewabic, Franklin, Pontiac, Albany, and Boston, &c., the shares in all of which mines must be favourably affected by the discovery.

ORIGIN OF PETROLEUM.—The flow of oil from mineral springs is by no means new either to science or commerce. Herodotus has recorded that the island of Zante furnished large quantities, while Pliny and Dioscorides describe the oil obtained from Agrigentum, a small town in Sicily. The Persian springs at Bakoun have yielded to the value of \$600,000 annually; and the earth oil from Rangoon, in Burmah, has been exported to the extent of 400,000 hogsheads yearly. The streets of Genoa and Amiens were formerly lit by a petroleum obtained from Parma. In 1847, a spring was discovered in Yorkshire, which was successfully worked by Mr. James Young, of Glasgow, until exhausted, when he turned his attention to the distillation of coal, and discovered paraffin oil. The marvellous oil springs of the New World, however, far surpass in extent and interest all previous discoveries, and the quantity already yielded, without apparently diminishing the supply, shows that this will be a most important article of commerce for some years to come. In Canada the oil rises from the saturated carboniferous limestones; in the States it is principally obtained from Devonian sandstones, while in Western Virginia and Ohio it rises directly from the coal measures. In all cases it, no doubt, arises from the decomposition of coal by temperature and pressure, and is lifted by the percolation of water under it to cavities and fissures in rocks till it approaches the surface, and it is generally accompanied by quantities of coal gas.—Dr. J. B. EDWARDS.

TRIMISARAN COAL AND IRONWORKS.—These works, which lie in the extreme western portion of the Carmarthenshire coal basin, and cover 570 acres, have just been purchased by Liverpool and Manchester capitalists. The coal is chiefly anthracite, of extraordinary thickness; upwards of 60 ft. actually crop out on the estate, and numerous other seams, one of which is 9 ft. thick, lie underneath, making the total workable quantity upwards of 100 ft. in thickness. The iron ore is remarkably rich, and is interstratified with the coal. The new docks at Llanelli, and the harbours of Pembrey and Bury Port afford accommodation for vessels of large tonnage, and the depth of water at each place exceeds that of any of the ports in the Bristol Channel. The capitalists who have now taken the property are determined that there shall be no want of energy on their part, and no doubt they will be amply repaid for their venture. The large fortunes which have been realised of late years by many others in the district warrant them in looking for a similar result.

VIOLATIONS OF THE MINES INSPECTION ACT—COALMASTERS PROSECUTED.—At the Airdrie Sheriff Criminal Court, Dundas Simpson, coalmaster, Monkland, prosecuted at the instance of the Procurator-Fiscal, pleaded guilty to neglect, but not to wilful violation, of the 18th section of the Act 23 and 24 Vict., cap. 151, and the 7th general rule of the 10th section of said Act—the former by not having the rules for the colliery printed and hung up at No. 2 coal pit, Priestrigg; and the latter by not having the proper means of communicating signals from the bottom to the top, &c., of No. 3 pit of the same colliery. The prosecutor stated that since Mr. Simpson had been charged with the offence, he had caused the necessary steps to be taken to repair the fault. His Lordship enquiring whether the respondent had anything to urge why the penalty imposed by the Act (201.) should not be inflicted.—Mr. Simpson pleaded (amidst some laughter) that the coal trade was a very poor one, and would hardly admit of all the improvements now required. This was a plea which, of course, the Sheriff could not accept. His Lordship reserved judgment.—Robert Livingstone, a partner of the Drumtannie Company, was next called to the bar on a charge of violating the 1st general rule of the 10th section, and also the 15th section of the Act quoted in the former case, the former by having Drumtannie coal pit insufficiently ventilated, and the latter by not having the rules of the colliery hung up at the colliery. In this case it was alleged by the prosecutor that an explosion had occurred in consequence of the defective ventilation, whereby a collier, named Hugh Paterson, had been injured. The respondent pleaded not guilty of wilful violation of the provisions of the Act, but admitted the neglect, producing at the same time a receipt from the injured person for 8/-, which he had paid at the rate of 1s. weekly the time he was off work. Judgment in this case was also reserved.

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patronage be afforded to this proposition, a plan and elevation of the bridge (on a scale of 100 ft. to 1 in., occupying a length of more than 10 ft.), with a pamphlet giving a full description of the structure with its probable cost, should be immediately published (price 5s. to subscribers), which will show a dividend of more than 6 per cent. per annum may be realised on the capital invested. Mr. Rogers request those interested in the undertaking not to distract their minds with respect to the cost of the affair, but to leave that to a finance committee, to be in due time appointed; he only desires those interested in the project to express their wish for its accomplishment, and believes there would very soon be found the way of effecting it.

WEATHER PREDICTIONS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—A few weeks ago I stated that the weather would be generally of a mild character to the end of the year, and that the war of the elements would prevent the possibility of our getting much cold weather. Since I made this statement we have had hoar frosts, fog, misty depictions, some sleet-snow, and mild temperature, as it were, all mixed up together, neither one or the other prevailing for more than a few hours. In fact, it is a series of changes almost impossible for me to describe, for want of a suitable nomenclature for this purpose. For every class of clouds this difficulty has ceased to be. These are divided into cirrus, cumulus, stratus, nimbus, and so on; but for the weather we have positively no suitable language. For my own part I do not care to undertake the task of framing one. In my last I stated the general character of the weather for the week, and that strong winds would occur about the 1st inst. These winds have been severe in the Channel, and most parts of our coast.

For the future, the weather will remain more or less unsettled to the 7th. From this date to about the 22d the weather will be of a very strong character—gales and strong winds will succeed each other in rapid succession, except at very short intervals; in fact, it will be a stormy month, and perfectly in keeping with the year, which has brought upon us such dire calamities.—26, Throgmorton-street, Dec. 4. G. SHEPHERD, C.E., Author of "The Climate of England."

MANUFACTURE OF IRON AND STEEL.—Mr. A. Berard, of Paris, has patented some improvements in the manufacture of iron and steel direct from the ore. According to this invention, steam, air, or gas is forced through the molten metal in a reverberatory furnace, by which means the coal dust, pulverised charcoal, &c.

PUDLING, BALLING, AND RE-HEATING FURNACES.—Mr. W. Davies, of Llanelli, proposes that in the construction of puddling, balling, and re-heating furnaces the fire bars, instead of being laid side by side and from front to back, should be laid transversely and diagonally alternately from side to side, so that the lowest part may be in the middle.

THAMES TUNNEL COMPANY.—Receipts for the week ending Nov. 29, 1862. 5s. 9d.; number of passengers, 23,829.

HOLLOWAY'S OINTMENT AND PILLS—INSTANT RELIEF.—Sores which are daily extending, ulcers which are hourly deepening, may be arrested in their torturing progress, and induced to take an healthy action by applying this healing ointment and taking these purifying pills. It soothes all distempers of, and extracts all morbid humours from the skin. Old ulcers of the legs, inflammations caused by varicose veins, and cramps of the lower limbs can sensibly be eased and shortly cured by Holloway's never-failing ointment, which represses excessive, and stimulates sluggish, vascular and nervous action. In constitutions breaking down under piles, fistulas, and other similarly painful maladies, a few applications of this cooling ointment will give comfort, and a persistence in its use will effect a cure.

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[DEC. 6, 1862.]

NOUVELLE MONTAGNE COMPANY.—The SECOND PAYMENT of the DIVIDEND of 1861 will be PAID AFTER the 31st of DECEMBER NEXT, viz.:—5s. frs. against delivery of the Coupon No. 10 for whole shares, and 5s. frs. for fifths of shares. The payments will be made, at—

Verviers At the Offices of the Company.
London By Messrs. C. DEVAUX and Co.
Paris By Messrs. ROUGEMONT DE LOWENBERG.
Bruxelles By Messrs. J. P. MATTHIEU and FILS.
Liege By Messrs. NAGELMACKERS and FILS.

VICTOR SIMON, Le Directeur Général de la Société.

Verviers, the 15th November, 1862.

THE SOVEREIGN GOLD MINING COMPANY (LIMITED).

Completely registered.
GOLD DISTRICT, DOLGELLY, WALES.

Capital £50,000, in 50,000 shares of £1 each.

5s. per share deposit on application, and 5s. on allotment.

OFFICES,—10, OLD JEWRY CHAMBERS, LONDON, E.C.

Prospectuses, giving plans, assays, &c., may be obtained of the broker, FREDERICK EVERITT, Esq., 17 and 18, Royal Exchange, London, E.C.; or of the secretary, at the company's offices.

TREGURTHA DOWNS AND OWEN VEAN CONSOLS MINING COMPANY (LIMITED).

ST. HILARY AND PERRANARTHNOE, CORNWALL.

Capital £40,000, in 16,000 shares, of £2 10s. each.

Deposit, 5s. per share on application, and 15s. on allotment.

HANDELS.
Union Bank of London, Princes-street.
Messrs. Vivian, Grylls, Kendall, and Co. Helston.
Messrs. Bolitho, Sons, and Co., Penzance.

SOLICITORS.
H. Grylls Hill, Esq., 17, Barge-yard Chambers, London.

Messrs. Grylls, Hill, and Hill, Helston.

LONDON MANAGERS—Messrs. Dunford and Ranken, 9, Broad-street-buildings.

ABRIDGED PROSPECTUS.

This company (incorporated under the "Companies Act, 1852," with limited liability) is formed to work the Tregurtha Downs and Owen Vein Tin and Copper Mines, which are situated in one of the richest mining districts in Cornwall, being surrounded by mines which have yielded copper and tin, producing from £8,000,000 to £10,000,000.

Wheat Fortune £570,000 | Wheat Speedwell £167,000
Old Wheat Neptune 400,000 | Marasen Mines 161,000
Wheat Friendship 261,000 | Wheat Charlotte 151,000
Ifflmanning 283,000 | Wheat Darlington 119,000

The same mines have yielded large values of tin, of which there are no official returns; but the richness of the district in tin is proved by the neighbouring mine, Wheal Grylls, having sold, in the quarter ending in September last, 75 tons, producing £1794.

TREGURTHA Downs has been opened to a depth of only 60 fms., where it proved to be increasing in richness, and, although little has been done below the 35 ft., the mine has yielded £165,000 worth of ore, and large quantities will be raised directly the mine is drained. It contains many tin and copper lodes, and a rich one of silver-lead, and the sett is traversed by elevans and cross-courses.

OWEN VEAN has been opened only 70 fms., and little has been done below the 50 ft.; but the mine has, nevertheless, returned £250,000 worth of copper ore, and a lode now standing in the 40 and 50 fm. levels would be readily set at 5s. in £1 tribute.

When these mines made the above returns, tin was worth only half its present value, and copper was 40 per cent. cheaper than it is now.

The tedious and unproductive, but necessary, work—viz., sinking shafts and driving levels—is already done, so that both mines will yield produce and profits at once, for the 50 and 60 fm. fm. levels have not yet been brought under the productive ground, but which may be done as the mines are being drained, and large quantities of tin and copper raised immediately.

The ores, both of tin and copper, are very rich. It is shown by the reports that they would be readily worked at a tribute of only 3s. to 4s. in £1.

The same lodes run through both sets, which can be worked together, to much greater advantage than separately.

There are parallel lodes in both mines, which have not yet been worked at all, but which will, no doubt, be equally productive, and which may be easily worked by cross-cuts.

Both mines are in the killas, near to its junction with the granite, which is the most productive stratum, and cheapest for working.

The dues are very low, being only 1-20th, instead of 1-10th, as formerly.

The company has secured 21 years' leases of the mines, with all the valuable work already done, at scarcely one-third of its cost, and with power of renewal on same terms.

The reports are very numerous and favourable, many of them being from miners of the highest reputation, viz.:—

W. Roberts and J. Daw, of Carh Brea and West Basset Mines.

J. Curtis, of St. Asby and Grylls.

R. Osborne, of Wheal Grylls.

A. Bennett, of Tolvadon.

John Roberts, Wm. Bishop, Wm. Oats, James Thomas, J. Vivian, B. Grundy, &c.

Detailed prospectuses, with maps, plans, reports, forms of application, and all information may be obtained of Messrs. Dunford and Ranken, No. 9, Broad-street-buildings, and will be forwarded by post on application.

A geological map of the district, also plans and sections, showing the workings, copied from the originals in the Museum of Geology, Jermyn-street, may be seen at the managers'.

THE ROARING WATER MINING COMPANY (LIMITED).

Incorporated pursuant to the Joint Stock Companies Acts, 1862.

Capital, £18,000, in 6000 shares of £3 each.

10s. to be paid on application, and 10s. on allotment.

DIRECTORS.

Sir JAMES DOMBRAIN, Monkstown, and 20, Molesworth-street, Dublin.

Colonel BUSH, 45, York-terrace, Regent's Park (Director of the Oriental Inland Steam Navigation Company).

CHARLES T. HAWKINS, Esq., 12, Broad-street, Oxford (Director of the St. Just Mines).

WILLIAM OGILVIE, Esq., Cushion-court, Old Broad-street (Director of the St. Just Mines).

Captain PAUL, Queen's-road, Bayswater (late of the Knockmahon Mines).

H. CHURCHILL, Esq., Deddington, Oxfordshire (Director of the Strand Hotel Company).

BANKERS.—London and County Bank, Lombard-street.

SOLICITORS.

Messrs. Meyrick and Gedge, 4, Storey's Gate, Great George-street, Westminster.

AUDITORS—Messrs. Cooper Brothers, public accountants, George-street, Mansion House.

BROKERS.

Messrs. Webb and Geach, 8, Finch-lane, Threadneedle-street, London.

Messrs. J. and J. Stephens and Son, 44, Dame-street, Dublin.

Robert McEwen, Esq., Duke-buildings, Bank-street, Manchester.

MANAGER—Mr. Thomas Cooper Smith.

OFFICES—5, WARNFORD COURT, THROGMORTON STREET, CITY.

The object of this company is to work the copper mines of Roaring Water, situated in the parish of Aughadow, in the barony of West Carberry, co. Cork, a district well known among mineralogists as being rich in mineral deposits. The sett extends over 1½ miles in length, and ¾ of a mile in breadth, and is held for a term of 31 years from July last, at a royalty of £-18th, with a clause for renewal, or payment of a comparatively small fine at the end of that period, for the same term.

The promising character of the mines proposed to be worked by the present company fully warrants the expectation that early returns will be realised; there are 19 well-defined lodes upon the sett, composed principally of yellow and peacock copper ores, rich specimens of malachite, friable quartz, and gossan of the finest description, from which many tons of rich ore have been taken, which on assay have been found to contain a large proportion of silver, and strong traces of gold, and as the geological formation is identical with that in Wales, from which so much gold is being now extracted, and from the reports of Capt. Paul (see appendix), there is every reasonable ground to expect gold will be found on this property. These lodes beyond all doubt are a continuation of the rich veins of copper now working with such great promise and success at the Schull Bay, Cappagh, and Ballincumisk Mines, all of which there can be no reasonable doubt but are a continuation of the Berehaven lodes. The latter mines are said to have yielded from their commencement copper ore of the value of £2,000,000 sterling. It is well known that the quality of the ores raised there is of a far higher standard (nearly double) than the average product of the Cornish ores; this may be tested by a reference to the Swansea assay lists.

A large amount of capital has been expended on the Roaring Water Mines by parties who were unable to prosecute them in depth from want of means; this is the key-stone of success in Ireland, as well as in Cornwall, as clearly shown by the workings of Berehaven, Holyford, Knockman, Ballincumisk, and the Wicklow Mines, which are sunk to depths varying from 60 to 200 fathoms, and yielding increased quantities of ore the deeper they are worked; they continue to pay large dividends regularly.

The reports annexed are from men of long practical experience, their testimony as to the highly-promising character of the property, and the great local advantages by which it is surrounded will be read with interest, and leave nothing to be urged by the directors, except an assurance of their strong confidence as to its value; this assurance is further supported by the results of the assay they have obtained of the ores from the various levels—viz., the yellow ore, which may safely be considered an average sample of this class ore, 14½ per cent., and the purple ore 55 and 58½ per cent. These results are so satisfactory that no doubt is left on their minds that this property will bear comparison with any of the rich mines opened in the district; and as several thousand pounds have already been expended in opening and testing the various lodes, these works will be of the greatest value to the company, and fully warrant the conclusion that early and profitable returns may be relied upon.

The company has entered into a most favourable arrangement for the purchase of the property—viz., for £60,000. The vendor has consented to take £5000 in shares, and £1000 in cash, thus proving his confidence in the success of the undertaking.

The capital of the company is fixed at £18,000, in 6000 shares, of £3 each; it is estimated that £3 per share will be ample to place the mine in a profitable state.

The company having been registered with limited liability no shareholder can, under any circumstances whatever, be made responsible for a greater amount than that of the shares to which he subscribes.

There are no special Articles of Association, Table A, under the Companies Act, 1862, having been adopted in its entirety, except clause 27, which has been altered, so as to ensure the attendance of a sufficient number of shareholders, to enable business to be transacted at the meetings of the company.

To insure subscribers from any loss which may arise should a sufficient number of shares not be subscribed for, the directors bind themselves to return the whole of the deposit money, unless at least one-half of the shares, exclusive of those to be paid to the vendor, are taken.

A considerable portion of the capital has been already subscribed.

Applications for shares to be made to the bankers, directors, solicitors, brokers, and the manager, at the office of the company, where prospectuses and forms of application may be obtained; also reports on the mines from Capt. HENRY THOMAS; Capt. PAUL, late of the Knockman Mines; Capt. CARTHEW, of the St. Just Mines; Capt. MARTIN BOUNDY, of Dublin; and Capt. JAMES HOSKING, late of the South Cork Mines.

THE MINING JOURNAL.

In Chancery.

UNRESERVED SALE.

IMPORTANT FREEHOLD AND LEASEHOLD COLLIERIES, SOUTH WALES.

MESSRS. FULLER AND HORSEY are instructed to SELL BY AUCTION, on Tuesday, December 16, without reserve, at Twelve o'clock, at the Auction Mart, London, in One Lot, by order of His Honour the Master of the Rolls, and with the concurrence of the mortgages, the very VALUABLE COLLIERIES and OTHER MINERAL PROPERTIES and SURFACE LANDS, FREEHOLD, COPYHOLD, and LEASEHOLD, belonging to the RISCA COAL AND IRON COMPANY, situated about six miles and three-quarters from Newport, a safe and commodious port on the Usk, near its junction with the Severn, in the county of Monmouth.

There is direct railway communication between the works and the docks and wharf at Newport, and vessels of upwards of 1000 tons burthen can enter the docks at New-port, or load along the side of the wharf.

The COAL FIELDS extend under an area of 1294. 1s. 27r., leasehold, from Lord Tredegar, at rents and royalties the details of which appear in the particulars, and 240. 2s. 16r., freehold and copyhold.

The SURFACE LANDS comprise—the RISCA FARM, 128a. 0s. 11r., with manager's house and cottages; BUCK FARM, 73a. 1s. 28r., with LIMEKILN and cottage, agents' houses, offices, workers' cottages, &c., held under beneficial leases.

There are FOUR SEAMS or VEINS OF COAL, extending over the principal portion of the entire area, of the thickness of 28 ft. in the aggregate, and known as the ROCK VEIN, the BIG VEIN, the BLACK VEIN, and the SUN VEIN.

The BLACK VEIN is the most valuable. It is a first-class steam coal, and has the reputation on the market of being the best coal for exporting to the several foreign coaling stations in warm climates. The Royal West India Mail Packet Company have shipped it to their foreign coal depots for upwards of 20 years. The thickness of the seam is 8 ft. 10 in., and the quantity at this time actually raised is at the rate of 80,000 tons per annum.

The BIG VEIN is well adapted for making coke, or for general manufacturing purposes; the thickness of the seam is 12 feet.

The SUN VEIN is from 2 ft. 6 in. to 3 ft. in thickness, and has a good roof; it is adapted for a house coal. The general arrangements of the workings are good, many improvements both in the modes of working and ventilation having been recently adopted, the result being a material increase in the quantity of coal raised, and a proportionate diminution of the cost of raising. Other improvements suggested by the Government Inspector and the arbitrator are in progress. The plant is all in efficient working order.

Attached to the collieries are FIRE BRICK WORKS; also STONE QUARRIES and LIMEKILNS. Ironworks could be advantageously introduced, as there is a rich vein of ironstone underlying the seams of coal, and there is limestone in abundance.

There are also SEVENTY-NINE COTTAGES for workmen, residences for clerks and overseers, suitable offices, and a shop and warehouse.

The manager's residence and some of the farms are in hand, from which a supply of hay and corn for the horses is obtained. Other farms are let; the total amount of rentals received by the company is £5900 per annum.

With the sale of the colliery will be included the COMPANY'S INTEREST in the LEAD and COMMODIOUS WHARF at NEWPORT, on which are laid three lines of tram-roads communicating with the Western Valley's Railway, and running down to three loading stages on the river; also NINE COALS SHEDS in the DOCKS at SOUTHAMPTON, held at a rental of £140 per annum.

Surveys and highly favourable reports have been made by eminent mining engineers.

The works may be inspected, and plans and particulars and other information obtained by Messrs. FUTTOVE, SAWTELL, and LIGHTFOOT, solicitors, 23, John-street, Bedford-row; Messrs. CROWDIE and MAYNARD, solicitors, Coleman-street; Messrs. CUTLER and TURNER, solicitors, 29, Bedford-square; L. WINNE, Esq., solicitor, 46, Lincoln's Inn-fields; Messrs. SLOPSON and NORTH, solicitors, Liverpool; Messrs. COLEMAN, TURNQUAND, YOUNGS, and Co., Tokenhouse-yard; at the Westgate Hotel, Newbury; at the Cardiff Arms, Cardiff; at the principal Inns at Bristol and Gloucester; at the Auction Mart; and of Messrs. FULLER and HORSEY, Billiter-street, London, E.C.

GEORGE WHITING, Chief Clerk.

S MELTING WORKS FOR LEAD AND ZINC ORES, NOW IN FULL OPERATION, IN WALES.—TO BE DISPOSED OF, BY PRIVATE CONTRACT, WITH PREMISES AND PLANT, adapted for smelting zinc and zinc ores, and for the manufacture of sheet lead and lead pipe to the extent of about 85 tons per week; also for desilverising lead ores. The works are most desirably placed on a line of railway, and with water communication. About £15,000 to £20,000 will be required.—For further particulars, apply to Messrs. FULLER and HORSEY, 13, Billiter-street, London, E.C.—December 5, 1862.

M ESSRS. SKARDON AND SONS WILL SELL BY AUCTION, on Wednesday, the 17th of December, 1862, all the VALUABLE PLANT of the above mine, consisting of—

A WATER-WHEEL, 40 ft. diameter, 4 ft. abreast, with iron rings, cylindrical axis, sockets, cranks, saddles, gun-metal bearings, and a DRAWING MACHINE attached.

A powerful CORNISH CRUSHER and driving gear. The crusher has all the modern improvements, combined with strength, and may be seen at the Old Crowndale Mine, near Tavistock. And the following pump-work:

18 fms. 9 ft. 9 in. in pump.
6 9 ft. 9 in. pumps.
7 9 ft. 9 in. pumps.
2 13 in. case.

1 11 in. doorpost and door.
1 7 in. working barrel.
2 9 in. windbores.
2 9 in. doorposts and doors.
1 matching.

THE MINING JOURNAL.

MANCHESTER.

M. W. HANNAM: OFFICES, CARLTON BUILDINGS, COOPER STREET, MANCHESTER.
MINING, SLATE QUARRYING, INSURANCE, and GENERAL STOCK and SHAREDEALER.

A monthly investment Circular on application.

Dealing in this office is limited to special mines, and companies whose pretensions have been personally investigated, and to the dividend-paying mines ordinarily dealt with on the London market, and for the latter purpose arrangements have been made for the easiest information from the great mining districts. There can be little doubt that it is dealing with well-established, dividend-paying mines, investors, without any greater risk than accrues from purchase of railway or house property, receive a much larger return profit than from any other species of investment, free from all trouble, and paid in the most convenient form for those who have limited incomes—viz., every two or three months; while those who enter into new undertakings, such as progressive mines, have the knowledge that nothing which is not *bona fide*, and has stood the test of thorough examination, is submitted to them. It cannot, of course, be expected that where the profits are so enormous that these latter investments should be entirely free from risk. All that can be done is to ascertain the responsibility of the management, and the value of the prospects. This done, no speculations are likely to be so valuable as those in mining operations; it being an uncommon occurrence for shares to rise in value 200 and 300 per cent. in a few months.

MR. JOSIAH HUGO HITCHINS, the Consulting Mining Engineer of the Devon Great Consols Mines and others, announces that his present arrangements will enable him to afford GREATER FACILITY and ADVANTAGE OF CONSULTATION on the ELIGIBILITY and VALUE of MINING INVESTMENTS, and will also act as a STRICTLY CONFIDENTIAL AGENT in EFFECTING the PURCHASE or SALE of MINING PROPERTIES, and SHARES in MINES, on the most advantageous terms.

Mr. J. H. HITCHINS will periodically visit the mines of Devon and Cornwall, the North of England, Ireland, and Wales, to obtain the best local agents' opinions of their present and prospective value, and more especially to enable him on his own judgment to advise thereon in the most reliable manner.

Mr. J. H. HITCHINS has no hesitation in saying that mines in desirable localities, and worked with good practical judgment, prove profitable investments. It is necessary, however, that persons should be guided by the soundest information and advice in the choice of them—and, indeed, only such mines as are recommended by the most able, the most experienced, and the most trustworthy agents, should be embarked in.

Mr. J. H. HITCHINS properly values his reputation as the projector, and for many years the chief superintendent, of not only those wonderful mines, the Devon Great Consols, but also many others in Devon and Cornwall, as is well known, and presumes that in thirty years' varied experience and well-matured judgment will enable him to advise the best investments in Dividend Mines, as well as those likely to realise the greatest and earliest success.

Mining investments afford opportunities occasionally for realising great profit, and, indeed, it is not frequently happens that mines in a short time so much improve as to make the shares in them from 100 to 200 per cent., and upwards, more valuable. There are several mines paying dividends, and others safely progressing towards that desirable position, offering great inducements for investment at the present prices of shares (some very likely to gradually increase in value before long), to which Mr. J. H. HITCHINS desires to direct special attention.

Mr. J. H. HITCHINS will also assist in the formation of new companies for good undertakings, and advise existing companies on the best improvements to be made in the management, means, appliances, and management generally of their mines. Combe Martin, Ilfracombe, Devonshire.

VALUABLE INFORMATION TO INVESTORS. COMPANIES, &c.—THE SOUTH WALES MINE AGENCY.—South Wales is a colossus of wealth as regards its minerals, but mismanagement, and a want of knowledge respecting the peculiarities of the district, have often proved fatal to many well-merited enterprises. It is a well-known fact that enormous fortunes have been realised by private parties, as well as public companies, in Glamorganshire and Monmouthshire especially. There are considerable coal fields, ironstone, fire-clay, &c., in those two counties not yet touched, while certain localities in Carmarthenshire, Cardigan, Brecon, Merioneth, Carnarvon, Anglesey, and Montgomeryshire, abound in tin, copper, silver, lead, and even gold mines.

Mr. HENRY EVANS, 105, Commercial-street, Newport, Monmouthshire, from his extensive and various connections, is in a position to supply parties with reliable information respecting everything connected with the mines of the district. SURVEYS made, and all the business of a mining agency office transacted. SHARES BOUGHT AND SOLD. Confidential and other communications will receive prompt attention. On application to Mr. EVANS, the names of many gentlemen of the highest standing in the mining and trading world will be given, who may be consulted as regards the position, responsibility, and responsibility of the advertiser.

SHARES FOR SALE.—50 Lady Eliza (Limited, £3), £2 13s. paid; 40 South Minera, (limited, 25%), £2 12s. paid, an offer wanted.

BRITISH AND FOREIGN INVESTMENTS.—BUSINESS TRANSACTED in EVERY DESCRIPTION of SHARES in BANKS, CANALS, RAILWAYS, INSURANCE, MINES, and GOVERNMENT STOCK. Dividends received, calls paid, and every class of Stock Exchange business effected.

Mining shares pay from 15 to 20 per cent. in dividends, promptly paid every two and one-half months. Progressive shares in mines frequently advance from 100 to 300 per cent. in value, from risk, and safe to become permanent investments, if judiciously selected from reliable information.

MESSRS. FULLER AND CO., 26, CHANGE ALLEY, CORNHILL, LONDON, devote special attention to this class of property, having confidential agents in all parts of the kingdom, in whom great confidence is placed.

The following mines are specially recommended as likely to advance in price, and of becoming priors of the year 1863:—

Alfred Consols. Gisgas Caradon Cows. Stray Park. New Burra Burra (Australia). Toivaden. West Toligns. Wheal Union. Gurin. Snowbrook. Yudanamutana (S. Aus.).

Telegraphic messages promptly attended to.

TO ADVENTURERS IN FOREIGN MINES.—**MR. HARRY THOMAS VERRAN** of PLACENTIA, NEWFOUNDLAND, who has considerable experience (under the tuition of his father, and in connection with many other experienced Mining Engineers) is ready to UNDERTAKE and the EXAMINATION and REPORTING upon MINERAL PROPERTIES in Newfoundland, the United States, or any other country, where his services may prove useful to capitalists. The greatest evidence may be placed in Mr. VERRAN, who will use his best judgment in giving reliable information to those who may repose confidence in him.

SCIENTIFIC RECORD OF THE EXHIBITION (PRACTICAL MECHANICS' JOURNAL). Part XI., Dec. 1, price 2s., contains ASTRONOMICAL INSTRUMENTS, by T. R. ROBINSON, D.D., F.R.S., F.R.A.S., &c. INSTRUMENTS CONNECTED WITH LIGHT, by Prof. J. CLERK MAXWELL, F.R.C.S., F.R.S. and E. PHYSICAL APPARATUS, by the Rev. PROF. HAUGHTON, F.T.C.D., F.R.S. MEASUREMENT OF TIME—CLOCK WORK—HOROLOGY, by W. HILTON, F.R.S.A. DEILLS, by the Rev. PROF. HAUGHTON, F.R.S. MUSICAL INSTRUMENTS, by EDWD. J. RENAULT, LL.D., F.R.S.A., &c. ELECTRICAL INSTRUMENTS and TELEGRAPH APPARATUS, by C. W. SIEMENS, F.R.S., Mem. Inst. C.E. Illustrated by plate engraving of ORDNANCE RIFLING MACHINE, and 60 woodcuts. London: Longman and Co., Ludgate-hill; Proprietor's Offices (Offices for Patents), 47, Lincoln's Inn-fields, W.C.

PRACTICAL MECHANICS' JOURNAL for December, 1862 (Part 177, price 1s.), with a large engraving of Mr. Barclay's Steam Crane, and 40 woodcuts. Also, Original Articles on the Close of the Exhibition (Art. 8), Preservation of Timber, Sugar Machinery in the Exhibition, Whitworth and Armstrong's Gun, Nasmyth's Link Motion, Sandford's Fibre Dressing Machine—Recent Patents: Tools, Chalmers' Blinds, Scratches; Sewing Machines, McKenzie's Electro-Magnetic Engine; Magnetic Printing, Harrison—Law Reports: Young v. Ferrie, Threshing Machines, Gonell's Prolongation, American Patent Law, Reviews, Correspondence, Scientific Societies, British Association, Monthly Notes, Marine Memoranda, Lists of Events and Designs, Notices, &c.

London: Longman and Co., Ludgate-hill; Proprietor's Offices (Offices for Patents), 47, Lincoln's Inn-fields, W.C.

Now ready, price 6d.

GOVERNMENT INSPECTION OF COAL MINES, TO WHICH IS APPENDED THE REGULATION AND INSPECTION OF MINES which come into operation January 1, 1861.

Also, price 2s.

GLOSSARY OF ENGLISH AND FOREIGN MINING AND SMELTING TERMS.

Second edition, revised and much enlarged.

London: Mining Journal Office, 26, Fleet-street, London, E.C.; and of all booksellers and newsagents.

THE MINING REVIEW, AND JOURNAL OF COMMERCE, TRADE AND MANUFACTURE, SCIENCE AND THE ARTS.

Wednesday, March 26, 1862. Subscription, £1 1s. annually. Price 6d. stamped.

AILWAYS AND MINES, to Capitalists who seek safe and profitable investments, free from risk, should act only upon the soundest information. The market prices for the day are for the most part governed by the immediate supply and demand, and the operations of speculators, without reference to the *bona fide* merits of the property. Railways depend upon the traffic, expense, and capital accounts, the probabilities of alliance or competition with neighbouring companies, the creation of new shares, the state of the money market as affecting the results of debentures, and other considerations founded on data to which those only can have given special attention to the subject. Mines afford a wider range for profit than any other available securities. The best are free from debt, have large reserves, and pay dividends bi-monthly varying from £15 to £25 per cent. per annum. Instances frequently occur of young mines rising in value 400 or 500 per cent. But this class of security, like any other, should be purchased only upon the most reliable information. The Mining Journal devotes special attention to railways and mines, afford every information to capitals, and effects purchases and sales upon the best possible terms. Thirty years' experience in mining pursuits justifies us in offering our advice to the uninitiated in selecting mines for investment; we will, therefore, forward, upon receipt of Post-office order for £1, the names of six dividend and six progressive companies that will, in our opinion, well repay capitalists for money employed.

Messrs. TREDDINICK AND CO., STOCK and SHAREBROKERS, and DEALERS IN BRITISH MINING SHARES, 78, LOMBARD STREET, E.C.

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (ESTABLISHED 1764.)

Published every Saturday, price 2d., or quarterly 2s. 2d.

THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER.

Published every morning, price 1d.

The best medium for mining, manufacturing, shipping, and trading advertisements in the North of England.

42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 195, High-street, Sanderland.

BEDFORD IRONWORKS, TAVISTOCK.

NICHOLLS, WILLIAMS, AND CO. have generally a GOOD STOCK of SECOND-HAND MINING MATERIALS FOR SALE. They also MANUFACTURE STEAM ENGINES of every description on the newest principle. Castings and wrought-iron work made at the shortest notice. Machinery sent to all parts of the world. Steam boilers and chains warranted of the best description.

TO ENGINEERS, MINE AGENTS, MILLWRIGHTS, AND OTHERS.

Messrs. NICHOLLS, WILLIAMS, and CO. beg to announce to their customers and the public that, having ERECTED a POWERFUL STEAM HAMMER, they are now in a POSITION to MANUFACTURE HEAVY SHAFTS, and HAMMERED IRON GENERALLY, from selected scrap. All orders will have their best attention.

TO ENGINEERS, MINE AGENTS, MILLWRIGHTS, AND OTHERS.

Messrs. NICHOLLS, WILLIAMS, and CO. beg to announce to their customers and the public that, having ERECTED a POWERFUL STEAM HAMMER, they are now in a POSITION to MANUFACTURE HEAVY SHAFTS, and HAMMERED IRON GENERALLY, from selected scrap. All orders will have their best attention.

M. WHEATLEY KIRK (principal of the firm of Wheatley Kirk and Co., engineers, contractors, &c.) ARCHIMEDEAN WORKS, ALBERT STREET, ST. MARY'S, MANCHESTER, continues, after upwards of 20 years' experience, personally to attend to VALUATIONS, ARBITRATIONS, or SALES BY PRIVATE CONTRACT or PUBLIC AUCTION, of EVERY DESCRIPTION OF PROPERTY pertaining to ENGINEERING, MACHINERY or PLANT in ENGINEERING ESTABLISHMENTS, MILLS, FACTORIES, WORKS, &c., with the LANDS, ESTATES, and BUILDINGS belonging thereto; also in RAILWAYS, MINES, &c.—Albert-street, St. Mary's, September, 1862.

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO. MIDLAND WORKS, BIRMINGHAM. BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS IN STOCK—FOR SALE OR HIRE.

RAILWAY WAGONS.—WILLIAM HARRISON AND CAMM HAVE ON HAND RAILWAY, COAL, COKE, AND MINERAL WAGONS ON SALE OR HIRE, AT THE ROTHERHAM WAGON WORKS, MASBRO'.

RAILWAY WAGONS.—J. H. SALES AND CO. WEST RIDING WORKS, SHEFFIELD. RAILWAY WAGONS ON SALE. RAILWAY WAGONS ON HIRE. RAILWAY WAGONS ON SALE ON PURCHASE LEASES.

For terms, apply as above, where sample wagons may be inspected. Material and workmanship guaranteed.

RAILWAY CARRIAGE COMPANY (LIMITED). ESTABLISHED 1847. OLDBURY WORKS, NEAR BIRMINGHAM. MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, and EVERY DESCRIPTION OF IRONWORK.

Passenger carriages and wagons built, either for cash or for payment over a period of years.

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METROPOLITAN RAILWAY CARRIAGE AND WAGON COMPANY (LIMITED). SALTLEY WORKS, BIRMINGHAM. Successors to JOSEPH WRIGHT and Sons, Railway Carriage and Wagon Builders, and Contractors.

RAILWAY CARRIAGES AND WAGONS OF EVERY DESCRIPTION SUPPLIED, either for cash or deferred payments, and RAILWAY WAGONS TO BE LET UPON HIRE.

For terms and particulars, apply to the Saltley Works, Birmingham; secretary's offices and commercial agency, 8, Adam-street, Adelphi, London, W.C.

NORTH CENTRAL WAGON COMPANY, ROTHERHAM. RAILWAY WAGONS TO BE SOLD OR LET. Application to be made to Mr. BARRAS, secretary, North Central Wagon Company, Rotherham.

THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS RAILWAY WAGONS FOR HIRE. Apply to the SECRETARY, 3, Newhall-street, Birmingham.

GENERAL ROLLING STOCK COMPANY (LIMITED) With which is united the Rolling Stock Company of Ireland (Limited). OFFICES—92, CANNON STREET, E.C.

LONDON WORKS—RAILWAY WORKS, GOSWELL STREET. DUBLIN WORKS—SEVILLE WORKS, DUBLIN.

The Directors beg to announce that the BUSINESS of the company has been REMOVED to the PERMANENT OFFICES, 92, CANNON STREET, E.C., and that they are now PREPARED to RECEIVE PROPOSALS for WORKING on LEASE COMPLETED LINES of RAILWAY at FIXED RATES.

They are also PREPARED to SUPPLY, either by way of lease, hiring, or sale, EVERY DESCRIPTION of ROLLING STOCK, ENGINES, CARRIAGES, WAGONS, &c. The company has on hand a large number of first-class wagons, constructed either for goods or coal. Terms can be had on application at the offices, addressed to

J. HOWARD RUSSEL, Sec.

JOHN PICKERING AND CO., RAILWAY WAGON AND CARRIAGE BUILDERS. WAGONS FOR SALE, HIRE, OR ON PURCHASE LEASE. BRINSWORTH WAGON WORKS, ROTHERHAM.

TO RAILWAY COMPANIES, CONTRACTORS, COAL AND IRONMASTERS, WAGON BUILDERS, &c.—THE BEST and CHEAPEST LOCOMOTIVE GREASE is MANUFACTURED by BUCKNELL, CHESTERFIELD. Only one quality made. A trial is solicited. References given to some of the principal coal owners in the district. Sample casks from 2 cwt. upwards.

SHORTRIDGE, HOWELL, AND CO., HARTFORD STEEL WORKS, SHEFFIELD, SOLE MANUFACTURERS of HOWELL'S PATENT HOMOGENEOUS METAL PLATES for BOILERS, LOCOMOTIVE FIRE BOXES, and TUBES, COMBINING THE STRENGTH of STEEL with the MALLEABILITY of COPPER. RUSSELL and HOWELL'S PATENT CAST STEEL TUBES. McCONNELL'S PATENT HOLLOW RAILWAY AXLES.—For prices and terms, apply to SHORTRIDGE, HOWELL, and CO., Hartford Steel Works, Sheffield; or Messrs. HARVEY and CO., 12, Haymarket, London.

NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, 16, OZZEL STREET NORTH, BIRMINGHAM. STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—

REFINED METALLIC NICKEL. OXIDE OF COBALT. TWIRE, &c. REFINED METALLIC BISMUTH. GERMAN SILVER—INGOTS, SHEET NICKEL and COBALT ORES PURCHASED.

GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, AND CHEMICAL WORKS, NEAR STOKE-UPON-TRENT, STAFFORDSHIRE. JOHN HENSHAW WILLIAMSON, MANUFACTURER and REFINER. Reference.—Professor Miller, King's College, London.

EDWARD'S PATENT MINERAL ORE AND COAL WASHING MACHINE.—This is by far the MOST ECONOMICAL, as well as the MOST PERFECT MACHINE MADE. Each machine is capable of washing 25 to 50 tons per diem, according to quality.—Full particulars, testimonials, &c., may be obtained from E. EDWARDS, Esq., C.E., 1, York-buildings, Adelphi, where a working model may be seen.

C O A L W O R K I N G M A C H I N E R Y.—The West Ardsley Coal Company, having completed their Patented Machinery for Coal Mining, by Compressed Air Engines, beg to state that it is now in regular daily operation.

Those who wish to see the said machinery at work can do so on presenting a written order from the firm, which may be obtained as noted below.

And with a view to diminish as much as possible the unavoidable interruption to the ordinary business of the colliery, it is requested that parties should make their arrangements to visit the works on Saturdays only, from Eleven to Three o'clock.

All communications to be made to FIFTH, DONISTHORPE, and Bowen, 8, Britannia-street, Leeds.—November 14, 1862.

CREASE'S PATENT EXCAVATING MACHINERY, for SUPERSEDED THE SLOW and EXPENSIVE USE of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fm. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.

Applications to be addressed to Mr. GEORGE T. CURTIS (sole agent), 17, Gracechurch-street, London, E.C.

By providing the power of calculating the time and cost to explore a certain depth and extent of ground, speculation in mining will be assimilated to commercial pursuits, with this unmatchable advantage—that when the ground has been once carefully and judiciously selected, and operations properly and systematically carried out for its development, there would be far less chance of unsatisfactory results than are met with by merchants and manufacturers in the usual routine of their business. As this important invention must necessarily interest the landowners, mine proprietors, merchants, and miners, we opine it will meet with immediate adoption.—*Mining Journal*.

ASSAYS AND ANALYSES OF EVERY DESCRIPTION Conducted by JOHN MITCHELL, F.C.S., M.G.A. (late Mitchell and Rickard) Author of "Manual of Practical Assaying," "Metallurgical Papers," &c.

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THE MINING SHARE LIST.

DIVIDEND MINES.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Dividends Per Share. | Last Paid. |
|---|------------|--------------------|-----------------|--------------|----------------------|------------|
| 1000 Aldersey Edge (Cheshire) [L.] | 10 0 0.. | 60 .. | 7 18 6.. | 0 10 0— | May, 1862 | |
| 4000 Bedford United (copper), Tavistock .. | 2 6 0.. | 4 .. | 12 27 6.. | 0 2 0— | Sept. 1862 | |
| 240 Beacons (tin), St. Just .. | 20 0 0.. | 60 .. | 36 10 0.. | 1 .. | Oct. 1862 | |
| 200 Bettalack (tin, copper), St. Just .. | 91 5 0.. | 250 .. | 455 15 0.. | 0 6 0— | Nov. 1862 | |
| 916 Cargoll (silver-lead), Newlyn .. | 15 5 7.. | 32 .. | 34 36 .. | 0 0 1— | Nov. 1862 | |
| 1000 Carr Brea (copper, tin), Illogan .. | 18 0 0.. | 70 .. | 60 65 .. | 0 0 1— | April, 1861 | |
| 200 Cefn Cwm Brywyo (lead), Cardigan .. | 33 0 0.. | 10 .. | 9 0 0.. | 4 0 0— | April, 1861 | |
| 256 Copper Hill (copper) Redruth .. | 18 0 0.. | 80 .. | 9 10 0.. | 2 0 0— | Oct. 1862 | |
| 12000 Copper Miners of England .. | 25 0 0.. | 25 .. | 7 1/2 per cent. | Half-yearly. | Halt. | |
| 35000 Ditto ditto | 100 0 0.. | 24 .. | 1 .. | Half-yearly. | Halt. | |
| 1055 Craddock Moor (copper), St. Cleer .. | 8 0 0.. | 26 1/2 .. | 7 12 0 .. | 0 4 0— | July, 1862 | |
| 512 Crewegrawse and Penkevel, St. Columb .. | 10 0 0.. | 1 .. | 0 10 0.. | 0 10 0— | Jan., 1862 | |
| 867 Crim (lead), Cardiganshire [L.] .. | 7 10 0.. | 11 .. | 7 13 0 .. | 0 5 0— | July, 1862 | |
| 128 Cwmyntif (lead), Cardiganshire [S.E.] .. | 60 0 0.. | 105 .. | 247 10 0.. | 4 0 0— | Sept. 1862 | |
| 260 Derwent Mines (all-lead), Durham .. | 300 0 0.. | 180 .. | 147 0 .. | 5 0 0— | June, 1862 | |
| 1024 Devon Gt. Cun. (cop.), Tavist. [S.E.] .. | 1 0 0.. | 500 .. | 826 10 0.. | 10 0 0— | Nov. 1862 | |
| 355 Dolcoath (copper, tin) Camborne .. | 128 17 6.. | 590 .. | 686 10 0.. | 7 0 0— | Oct. 1862 | |
| 2000 Dymwyn (lead), Wales .. | 12 0 0.. | 104 .. | 6 15 0 .. | 0 2 0— | Sept. 1862 | |
| 512 East Bassed (cop.), Redruth [S.E.] .. | 20 10 0.. | 524 .. | 105 0 .. | 1 0 0— | Nov. 1862 | |
| 6144 East Cardon (copper), St. Cleer [S.E.] .. | 2 14 6.. | 34 1/2 .. | 4 17 6 .. | 1 0 0— | Oct. 1862 | |
| 300 East Camborne (Cardiganshire) .. | 32 0 0.. | 45 .. | 84 10 0 .. | 1 0 0— | Oct. 1862 | |
| 128 East Pool (tin, copper), Pool, Illogan .. | 24 5 0.. | 405 .. | 315 0 .. | 2 10 0— | Oct. 1862 | |
| 2800 Foxdale (lead) Isle of Man [L.] .. | 25 0 0.. | 5 .. | — | July, 1863 | | |
| 5000 Frank Mills (lead), Devon .. | 13 18 6.. | 4 .. | 0 16 0 .. | 0 2 0— | Mar. 1862 | |
| 6000 Great South Tolpu (S.E.), Redruth .. | 0 14 6.. | 6 1/2 .. | 7 18 6 .. | 0 5 0— | Dec. 1861 | |
| 1788 Great Wheel Fortune (tin), Breage .. | 18 6 0.. | 30 .. | 2 0 0 .. | 0 10 0— | Oct. 1862 | |
| 5008 Great Wh. (tin, cop.), Helston [S.E.] .. | 40 0 0.. | 2 .. | 0 3 0 .. | 0 1 0— | Mar. 1862 | |
| 1024 Gunnis Lake (Clitters' Adit), St. Just .. | 12 0 0.. | 104 .. | 2 2 6 .. | 0 5 0— | Sept. 1862 | |
| 1024 Herodotus (lead), near Liskeard [S.E.] .. | 8 10 0.. | 47 .. | 21 10 0 .. | 1 15 0— | Oct. 1862 | |
| 1000 Hibernian Mine Company .. | 92 2 6.. | 27 1/2 .. | 7 10 0 .. | 0 15 0— | Sept. 1861 | |
| 400 Ilaburne (lead), Cardiganshire, Wales .. | 18 18 0.. | 110 .. | 399 10 0 .. | 4 0 0— | Nov. 1862 | |
| 9000 Marke Valley (cop.), Cardon .. | 4 10 6.. | 104 .. | 2 4 0 .. | 0 4 0— | Oct. 1862 | |
| 1800 Miner Mining Co. [L.] (d.), Wrexham .. | 25 0 0.. | 200 .. | 99 18 0 .. | 7 0 0— | Nov. 1862 | |
| 20000 Mining Co. of Ireland (cop., lead, coal) .. | 7 0 0.. | 193/4 .. | 19% .. | 19% .. | Dec. 1861 | |
| 640 Mount Pleasant (lead), Mold .. | 4 0 0.. | 27 .. | 18 18 0 .. | 1 7 0— | Aug. 1862 | |
| 6000 New Birch Tor and Viller Cons. (tin) .. | 1 6 6.. | 11 .. | 0 3 6 .. | 0 1 0— | Sept. 1861 | |
| 5936 North Treksyker (copper), St. Agnes .. | 1 9 0 .. | 33 .. | 3 3% .. | 3% .. | Dec. 1861 | |
| 5000 Orsedd (lead), Flintshire .. | 0 0 8.. | 4 .. | 0 10 4 .. | 0 8 0— | Mar. 1862 | |
| 6400 Par Consols (cop.), St. Blazey [S.E.] .. | 1 2 6.. | 5 .. | 86 16 0 .. | 6 0 0— | Nov. 1862 | |
| 209 Parva Mines (copper), Anglesey [L.] .. | 50 0 0.. | — | 47 10 0 .. | 10 0 0— | Oct. 1862 | |
| 400 Phoenix (copper and tin) .. | — | 200 .. | — | — | — | |
| 1772 Polberrow (tin), St. Agnes .. | — | 5 .. | 6 19 6 .. | 0 10 0— | Dec. 1861 | |
| 112 Providence (tin), Ugly Lelant [S.E.] .. | 10 6 7.. | 42 .. | 38 40 .. | 6 5 0— | Nov. 1862 | |
| 6000 Rosehill Hill and Ransom United .. | 2 16 0.. | 33 .. | 3 1/2 3/4 .. | 8 8 0— | Sept. 1862 | |
| 4026 Rosewaren Consols (copper) .. | 3 7 6.. | — | 0 2 0 .. | 0 2 0— | Oct. 1862 | |
| 16 Rhosneigr (lead) .. | — | 1250 0 .. | 0 100 0 .. | Quarterly. | — | |
| 512 South Cardon (cop.), St. Cleer [S.E.] .. | 1 5 0 0.. | 400 .. | 390 400 .. | 30 0 .. | Nov. 1862 | |
| 512 South Toigo (cop.), Redruth, Cornwall .. | 8 0 0.. | 42 .. | 40 42 1/2 .. | 107 0 .. | May, 1862 | |
| 486 S. Wh. Francis (cop.), Illogan [S.E.] .. | 18 18 9.. | 95 .. | 90 95 .. | 364 5 0 .. | Nov. 1862 | |
| 280 Sparne Moor (tin, copper), St. Just .. | 31 17 9.. | — | 8 15 0 .. | 1 0 0— | June, 1862 | |
| 940 St. Ives Consols (tin), St. Ives .. | 8 0 0.. | 30 .. | 485 10 0 .. | 0 10 0— | Aug. 1862 | |
| 6000 Tamair Con. (st. lnd.), Berriostad [S.E.] .. | 4 10 0.. | 1 .. | 6 6 0 .. | 0 2 0— | Jan., 1861 | |
| 5000 Timcroft (cop.), Pool, Illogan [S.E.] .. | 9 0 0.. | 14 .. | 12 18 6 .. | 0 5 0— | Dec. 1862 | |
| 1000 Trumps Consols (tin), near Helston .. | 11 10 0.. | — | 11 0 0 .. | 2 0 0— | Mar. 1862 | |
| 4200 Vigras and Clogau (cop.), [L.] .. | 2 15 0.. | 35 .. | 32 34 .. | 4 12 6 .. | 1 0 0— | Oct. 1862 |
| 1024 Wendron Consols (tin), Wendron .. | 11 13 10.. | 12 .. | 11 .. | 8 15 0 .. | 1 0 0— | Jan., 1861 |
| 6000 West Basset (copper), Illogan [S.E.] .. | 1 10 0.. | 14 .. | 28 6 0 .. | 0 6 0— | Sept. 1862 | |
| 60 West Burton Gill (lead), Yorkshire .. | 50 0 0.. | 90 .. | 3400 10 0 .. | 5 0 0— | June, 1861 | |
| 1024 West Cardon (cop.), Liskeard [S.E.] .. | 5 0 0.. | 32 .. | 29 31 .. | 101 1 3 .. | Oct. 1862 | |
| 1024 West Fowey Consols (tin and copper) .. | 7 10 0.. | 31 .. | 0 19 0 .. | 0 3 0— | May, 1862 | |
| 1024 West Penstrial .. | 4 0 0.. | 9 .. | 2 19 6 .. | 2 19 6— | May, 1862 | |
| 400 W. Wh. Seton (cop.), Camborne [S.E.] .. | 47 10 0.. | 290 .. | 285 295 .. | 365 0 .. | Oct. 1862 | |
| 512 Wheal Basset (copper), Illogan [S.E.] .. | 5 2 6.. | 87 1/2 .. | 82 1/2 85 .. | 69 1 0 .. | Dec. 1862 | |
| 266 Wheal Buller (cop.), Redruth [L.] .. | 5 0 5 .. | 55 .. | 92 0 0 .. | 2 0 0— | Mar. 1861 | |
| 2800 Wh. Clifford Amalgamated (cop.), Gwen. 30 0 .. | 23 .. | 21 1/2 22 1/2 .. | 27 18 6 .. | 0 10 0— | Oct. 1862 | |
| 128 Wheal Friendship (copper), Devon .. | 10 0 0.. | 90 .. | 3400 10 0 .. | 5 0 0— | Feb. 1861 | |
| 1024 Wheal Grylls (tin), Perranthonw .. | 2 4 0.. | 29 .. | 27 29 .. | 2 2 0 .. | 0 10 0— | Sept. 1862 |
| 1024 Wheal Heart (tin), St. Just .. | 9 13 8.. | — | 0 5 0 .. | 0 5 0— | May, 1862 | |
| 512 Wheal Jane (silver-lead), Ken .. | 8 10 0 .. | 16 .. | 13 10 0 .. | 1 0 0— | Mar. 1862 | |
| 6000 Wh. Ledcoot and Wrey (tin), St. Ives .. | 2 10 2 8.. | 11 1/2 .. | 2 2 0 .. | 0 10 0— | Oct. 1862 | |
| 600 Wh. Margaret (tin), Ley. Unl. [S.E.] .. | 8 17 8.. | 42 .. | 38 40 .. | 75 5 0 .. | 1 0 0— | Nov. 1862 |
| 1000 Wh. Mary (tin), Lelant .. | 36 2 6.. | 440 .. | 284 5 0 .. | 4 0 0— | Mar. 1862 | |
| 2034 Wh. Mary Ann (cop.), Menheniot [S.E.] .. | 8 0 0.. | 16 .. | 56 16 0 .. | 15 16 .. | Oct. 1862 | |
| 5000 Wh. Owles (tin), St. Just, Cornwall .. | 70 0 0.. | 300 .. | 310 18 0 .. | 7 10 0— | Nov. 1862 | |
| 396 Wh. Seton (tin, copper), Camborne .. | 58 10 0.. | 167 1/2 172 1/2 .. | 141 15 0 .. | 2 0 0— | Oct. 1862 | |
| 1040 Wh. Trelawny (st. lnd.), Liskeard [S.E.] .. | 5 17 0 .. | 15 .. | 46 2 6 .. | 0 10 0— | Nov. 1862 | |
| 5000 Wicklow (copper) [L.] (d.), Wicklow .. | 5 0 0.. | 38 .. | 38 .. | 43 17 6 .. | 2 0 0— | Oct. 1861 |

* Dividends paid every two months. † Dividends paid every three months.

MINES WITH DIVIDENDS IN ABEYANCE.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Dividends Per Share. | Last Paid. |
|--|-----------|---------|--------------|-----------|----------------------|-------------|
| 700 Aldersey Edge (Cheshire) [L.] | 1 10 0.. | 30 .. | 0 10 0 .. | 0— | Mar., 1859 | |
| 6445 Alfred Consols (cop.), Phillack [S.E.] .. | 3 15 11.. | — | 3/4 3/4 .. | 20 3 0 .. | 0 2 0— | April, 1861 |
| 286 Condurrow (cop., tin), Camborne .. | 35 0 0.. | 105 .. | 80 0 .. | 2 0 0— | June, 1861 | |
| 2450 Cook's Kitchen (copper), Illogan .. | 17 0 0.. | 31 .. | 27 1/2 30 .. | 1 7 0 .. | 0 7 0— | May, 1862 |
| 675 Devon and Cornwall (copper) .. | 5 13 3.. | 9 .. | 0 10 0 .. | 0 2 0— | Feb. 1862 | |
| 672 Ding Dong (tin), Gwylfa .. | 10 13 6.. | 43/4 .. | 17 6 0 .. | 1 10 0— | Mar. 1862 | |
| 12300 Drunks Walls (tin, copper), Calstock .. | 2 1 0 .. | 28 .. | 0 15 0 .. | 0 1 0— | June, 1862 | |
| 3048 East Wheal Lovell (tin), Wendron .. | 2 12 8 .. | — | 0 5 0 .. | 0 5 0— | July, 1862 | |